



# NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

(NASA-CR-147642) MATED AERODYNAMIC  
CHARACTERISTICS INVESTIGATION FOR THE 0.04  
SCALE MODEL TE 1065 (BOEING 747-100) OF THE  
747 CAM AND THE 0.0405 SCALE MODEL (43-0) OF  
THE SPACE SHUTTLE ORBITER IN THE (Chrysler G3/16

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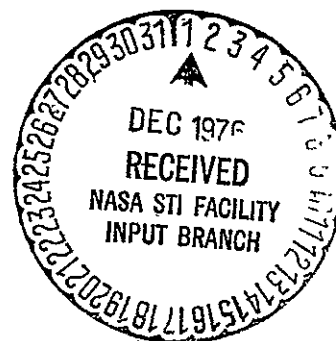
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SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT



JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANAGEMENT services

SPACE DIVISION



CHRYSLER  
CORPORATION

October 1976

DMS-DR-2290  
NASA CR-147,642

VOLUME 2

MATED AERODYNAMIC CHARACTERISTICS INVESTIGATION  
FOR THE 0.04 SCALE MODEL TE 1065 (BOEING 747-100)  
OF THE 747 CAM AND THE 0.0405 SCALE MODEL (43-0) OF  
THE SPACE SHUTTLE ORBITER IN THE NASA LANGLEY  
V/STOL TRANSITION RESEARCH WIND TUNNEL (CA8)

by

747 Aerodynamics, 747 Flight Controls  
and Wind Tunnel Test Staff  
The Boeing Co.

Prepared under NASA Contract Number NAS9-13247

by

Data Management Services  
Chrysler Corporation Space Division  
New Orleans, La. 70189

for

Engineering Analysis Division  
  
Johnson Space Center  
National Aeronautics and Space Administration  
Houston, Texas



WIND TUNNEL TEST SPECIFICS:

Test Number: LaRC V/STOL 129  
NASA Series Number: CA8  
Model Number: TE 1065 (Boeing 747-100), 43-0 (ORBITER)  
Test Dates: August 19 through September 11, 1975  
Occupancy Hours: 268

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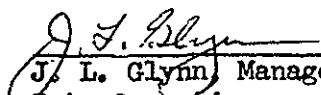
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MATED AERODYNAMIC CHARACTERISTICS INVESTIGATION  
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OF THE 747 CAM AND THE 0.0405 SCALE MODEL (43-0) OF  
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and Wind Tunnel Test Staff  
The Boeing Co.

ABSTRACT

This report contains data obtained in the NASA Langley V/STOL Transition Research Wind Tunnel on a 0.04 scale model of the 747 with a 0.0405 scale Orbiter Space Shuttle. The investigation included the effects of flap setting, stabilizer angle, elevator angle, ground proximity, and Orbiter tailcone fairing. Data were obtained in the pitch plane only. The test was run at  $M = 0.15$ , with a dynamic pressure of 35 psf.

Six static pressures were measured on each side of the 747 CAM nose to determine the effects of the Orbiter on the 747 airspeed and altitude indicators.

This report consists of 3 volumes of force data. They are arranged in the following manner.

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| 83               | FERRY CON. IN GROUND PROXIMITY, HORIZ OFF,<br>ELEVTR = -23, IORB = 6, TC ON MAIN BALANCE<br>DATA-GP SWEEPS         | ALPHAW                | C                                   | 293-295 |
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| 85               | FERRY CON. IN GROUND PROXIMITY, STAB = 0<br>ELEVTR = -23, IORB = 6, TC ON MAIN BALANCE<br>DATA-GP SWEEPS           | ALPHAW                | C                                   | 299-301 |
| 86               | FERRY CON. IN GROUND PROXIMITY, STAB = -2,<br>ELEVTR = -23, IORB = 6, TC ON MAIN BALANCE<br>DATA-GP SWEEPS         | ALPHAW                | C                                   | 302-304 |
| 87               | FERRY CON. IN GROUND PROXIMITY, STAB = 0<br>ELEVTR = 17, IORB = 6, TC ON MAIN BALANCE<br>DATA-GP SWEEPS            | ALPHAW                | C                                   | 305-307 |

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| 88               | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 6, TC ON MAIN BALANCE<br>DATA-GP SWEEPS | ALPHAW                | C                                   | 308-310 |
| 89               | FERRY CON. IN GROUND PROXIMITY, HORIZ OFF<br>FLAPS 10 IORB = 3, TC ON MAIN BALANCE<br>DATA-GP SWEEPS      | ALPHAW                | C                                   | 311-313 |
| 90               | FERRY CON. IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 10 IORB = 3, TC ON MAIN BALANCE DATA-<br>GP SWEEPS     | ALPHAW                | C                                   | 314-316 |
| 91               | FERRY CON. IN GROUND PROXIMITY, STAB = 0<br>FLAPS 10 IORB = 3, TC ON MAIN BALANCE<br>DATA-GP SWEEPS       | ALPHAW                | C                                   | 317-319 |
| 92               | FERRY CON. IN GROUND PROXIMITY, STAB = -2<br>FLAPS 10 IORB = 3, TC ON MAIN BALANCE<br>DATA-GP SWEEPS      | ALPHAW                | C                                   | 320-322 |
| 93               | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 3, TC ON MAIN BALANCE<br>DATA-GP SWEEPS | ALPHAW                | C                                   | 323-325 |
| 94               | FERRY CON. IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 20, IORB = 3, TC ON MAIN BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 326-328 |
| 95               | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 20, IORB = 3, TC ON MAIN BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 329-331 |



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| 96               | FERRY CON. IN GROUND PROXIMITY, STAB = -2<br>FLAPS 20, IORB = 3, TC ON MAIN BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 332-334 |
| 97               | FERRY CON. IN GROUND PROXIMITY, STAB = -4,<br>FLAPS 20, IORB = 3, TC ON MAIN BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 335-337 |
| 98               | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 3, TC ON MAIN BALANCE<br>DATA-GP SWEEPS | ALPHAW                | C                                   | 338-340 |
| 99               | FERRY CON. IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 20, IORB = 6, TC ON MAIN BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 341-343 |
| 100              | FERRY CON. IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 20, IORB = 6, TC ON MAIN BALANCE DATA-<br>GP SWEEPS    | ALPHAW                | C                                   | 344-346 |
| 101              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 20, IORB = 6, TC ON MAIN BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 347-349 |
| 102              | FERRY CON. IN GROUND PROXIMITY, STAB = -2,<br>FLAPS 20, IORB = 6, TC ON MAIN BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 350-352 |
| 103              | FERRY CON. IN GROUND PROXIMITY, STAB = 0<br>ELEVTR = 17, IORB = 6, TC ON MAIN BALANCE<br>DATA-GP SWEEPS   | ALPHAW                | C                                   | 353-355 |

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| 104              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 6, TC ON MAIN BALANCE<br>DATA-GP SWEEPS                    | ALPHAW                | C                                   | 356-358 |
| 105              | ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 10, IORB = 6, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS, WITH SUCTION PUMP   | ALPHAW                | C                                   | 359-361 |
| 106              | ALT CONFIG IN GROUND PROXIMITY, STAB = 4<br>FLAPS 10, IORB = 6, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS, WITH SUCTION PUMP     | ALPHAW                | C                                   | 362-364 |
| 107              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 10, IORB = 6, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS, WITH SUCTION PUMP    | ALPHAW                | C                                   | 365-367 |
| 108              | ALT CONFIG IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 10, IORB = 6, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS, WITH SUCTION PUMP    | ALPHAW                | C                                   | 368-370 |
| 109              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 10, IORB = 6, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS, WITHOUT SUCTION PUMP | ALPHAW                | C                                   | 371-373 |
| 110              | ALT CONFIG IN GROUND PROXIMITY, STAB = 4,<br>FLAPS 10, IORB = 6, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS, WITHOUT SUCTION PUMP | ALPHAW                | C                                   | 374-376 |
| 111              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 6, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS                   | ALPHAW                | C                                   | 377-379 |

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| 112              | ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 30, IORB = 6, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 380-382 |
| 113              | ALT CONFIG IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 30, IORB = 6, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 383-385 |
| 114              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 30, IORB = 6, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 386-388 |
| 115              | ALT CONFIG IN GROUND PROXIMITY, STAB = -2,<br>FLAPS 30, IORB = 6, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 389-391 |
| 116              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 6, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS | ALPHAW                | C                                   | 392-394 |
| 117              | ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 20, IORB = 8, TC ON MAIN BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 395-397 |
| 118              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 8, TC ON MAIN BALANCE<br>DATA-GP SWEEPS  | ALPHAW                | C                                   | 398-400 |
| 119              | ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 30, IORB = 8, TC ON MAIN BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 401-403 |

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| 120              | ALT CONFIG IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 30, IORB = 8, TC ON MAIN BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 404-406 |
| 121              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 30, IORB = 8, TC ON MAIN BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 407-409 |
| 122              | ALT CONFIG IN GROUND PROXIMITY, STAB = -2,<br>FLAPS 30, IORB = 8, TC ON MAIN BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 410-412 |
| 123              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 8, TC ON MAIN BALANCE<br>DATA-GP SWEEPS | ALPHAW                | C                                   | 413-415 |
| 124              | ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 10, IORB = 8, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS   | ALPHAW                | C                                   | 416-418 |
| 125              | ALT CONFIG IN GROUND PROXIMITY, STAB = 4,<br>FLAPS 10, IORB = 8, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 419-421 |
| 126              | ALT CONFIG IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 10, IORB = 8, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 422-424 |
| 127              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 10, IORB = 8, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 425-427 |

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| 128              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 8, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS  | ALPHAW                | C                                   | 428-430 |
| 129              | ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF<br>FLAPS 30, IORB = 8, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS  | ALPHAW                | C                                   | 431-433 |
| 130              | ALT CONFIG IN GROUND PROXIMITY, STAB = 2<br>FLAPS 30, IORB = 8, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS   | ALPHAW                | C                                   | 434-436 |
| 131              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 30, IORB = 8, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS  | ALPHAW                | C                                   | 437-439 |
| 132              | ALT CONFIG IN GROUND PROXIMITY, STAB = -2,<br>FLAPS 30, IORB = 8, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS   | ALPHAW                | C                                   | 440-442 |
| 133              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 8, TC OFF MAIN BALANCE<br>DATA-GP SWEEPS  | ALPHAW                | C                                   | 443-445 |
| 134              | FERRY CONFIG. STABILIZER EFFECTIVENESS<br>FLAPS UP, IORB = 3, TC ON, ELEV = 0,<br>CARRIER IN PRESENCE OF ORBITER (MAIN BALANCE-<br>ORBITER BALANCE), ALPHA SWEEPS | STAB                  | D                                   | 446-449 |
| 135              | FERRY CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS 10, IORB = 3, TC ON, ELEV = 0<br>CARRIER IN PRESENCE OF ORBITER (MAIN BALANCE-<br>ORBITER BALANCE), ALPHA SWEEPS | STAB                  | D                                   | 450-453 |

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| 136              | FERRY CONFIG. STABILIZER EFFECTIVENESS<br>FLAPS 20, IORB = 3, TC ON, ELEV = 0,<br>CARRIER IN PRESENCE OF ORBITER (MAIN BALANCE-<br>ORBITER BALANCE), ALPHA SWEEPS  | STAB                  | D                                   | 454-457 |
| 137              | FERRY CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS 30, IORB = 3, TC ON, ELEV = 0,<br>CARRIER IN PRESENCE OF ORBITER (MAIN BALANCE-<br>ORBITER BALANCE), ALPHA SWEEPS | STAB, ELEVTR          | D                                   | 458-461 |
| 138              | FERRY CONFIG. ELEVATOR EFFECTIVENESS<br>FLAPS 10, IORB = 3, TC ON, ELEV = 0,<br>CARRIER IN PRESENCE OF ORBITER (MAIN BALANCE-<br>ORBITER BALANCE), ALPHA SWEEPS    | ELEVTR                | D                                   | 462-465 |
| 139              | FERRY CONFIG. ELEVATOR EFFECTIVENESS,<br>FLAPS 20, IORB = 3, TC ON, ELEV = 0,<br>CARRIER IN PRESENCE OF ORBITER (MAIN BALANCE-<br>ORBITER BALANCE), ALPHA SWEEPS   | ELEVTR                | D                                   | 466-469 |
| 140              | FERRY CONFIG. ELEVATOR EFFECTIVENESS,<br>FLAPS 30, IORB = 3, TC ON, ELEV = 0,<br>CARRIER IN PRESENCE OF ORBITER (MAIN BALANCE-<br>ORBITER BALANCE), ALPHA SWEEPS   | ELEVTR                | D                                   | 470-473 |
| 141              | ALT CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS UP, IORB = 6, TC ON, ELEV 0,<br>CARRIER IN PRESENCE OF ORBITER (MAIN BALANCE-<br>ORBITER BALANCE), ALPHA SWEEPS     | STAB                  | D                                   | 474-477 |
| 142              | ALT CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS 20, IORB = 6, TC ON, ELEV = -5,<br>CARRIER IN PRESENCE OF ORBITER (MAIN BALANCE-<br>ORBITER BALANCE), ALPHA SWEEPS  | STAB                  | D                                   | 478-481 |

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| 143              | ALT CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS 30, IORB = 6, TC ON, ELEV = 0<br>CARRIER IN PRESENCE OF ORBITER (MAIN BALANCE-<br>ORBITER BALANCE), ALPHA SWEEPS   | STAB                  | D                                   | 482-485 |
| 144              | ALT CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS 30, IORB = 6, TC ON, ELEV = -5<br>CARRIER IN PRESENCE OF ORBITER (MAIN BALANCE-<br>ORBITER BALANCE), ALPHA SWEEPS  | STAB                  | D                                   | 486-489 |
| 145              | ALT CONFIG. ELEVATOR EFFECTIVENESS<br>FLAPS 30, IORB = 6, TC ON, ELEV = -5<br>CARRIER IN PRESENCE OF ORBITER (MAIN BALANCE-<br>ORBITER BALANCE), ALPHA SWEEPS     | ELEVTR                | D                                   | 490-493 |
| 146              | ALT CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS UP, IORB = 6, TC OFF, ELEV = 0<br>CARRIER IN PRESENCE OF ORBITER (MAIN BALANCE-<br>ORBITER BALANCE), ALPHA SWEEPS  | STAB                  | D                                   | 494-497 |
| 147              | ALT CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS 10, IORB = 6, TC OFF, ELEV = -5<br>CARRIER IN PRESENCE OF ORBITER (MAIN BALANCE-<br>ORBITER BALANCE), ALPHA SWEEPS | STAB                  | D                                   | 498-501 |
| 148              | ALT CONFIG. ELEVATOR EFFECTIVENESS,<br>FLAPS 10, IORB = 6, TC OFF, ELEV = -5<br>CARRIER IN PRESENCE OF ORBITER (MAIN BALANCE-<br>ORBITER BALANCE), ALPHA SWEEPS   | ELEVTR                | D                                   | 502-505 |
| 149              | ALT CONFIG. EFFECT OF LANDING GEAR, FLAPS 10<br>IORB = 6, TC OFF, ELEV = -5 CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), ALPHA SWEEPS.    | CONFIG.               | D                                   | 506-509 |

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| 150              | ALT CONFIG. EFFECT OF SUGAR SCOOPS, FLAPS 10,<br>IORB = 6, TC OFF, ELEV = -5 CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), ALPHA SWEEPS   | CONFIG.               | D                                   | 510-513 |
| 151              | ALT CONFIG. STABILIZER EFFECTIVENESS FLAPS<br>20, IORB = 6, TC OFF, ELEV = -5 CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), ALPHA SWEEPS  | STAB                  | D                                   | 514-517 |
| 152              | ALT CONFIG. EFFECT OF LANDING GEAR, FLAPS<br>20, IORB = 6, TC OFF, ELEV = -5 CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), ALPHA SWEEPS   | CONFIG.               | D                                   | 518-521 |
| 153              | ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS<br>20, IORB = 6, TC OFF, ELEV = -5 CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), ALPHA SWEEPS   | ELEVTR                | D                                   | 522-525 |
| 154              | ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS<br>30, IORB = 6, TC OFF, ELEV = -5 CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), ALPHA SWEEPS | STAB                  | D                                   | 526-529 |
| 155              | ALT CONFIG. EFFECT OF LANDING GEAR, FLAPS<br>30, IORB = 6, TC OFF, ELEV = -5 CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), ALPHA SWEEPS   | CONFIG.               | D                                   | 530-533 |
| 156              | ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS<br>30, IORB = 6, TC OFF, ELEV = -5 CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), ALPHA SWEEPS   | ELEVTR                | D                                   | 534-537 |



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| 157              | ALT CONFIG. EFFECT OF SUGAR SCOOPS FLAPS 30,<br>IORB = 6, TC OFF, ELEV = -5 CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), ALPHA SWEEPS    | CONFIG.               | D                                   | 538-541 |
| 158              | ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS<br>20, IORB = 8, TC ON, ELEV = -5 CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), ALPHA SWEEPS  | STAB                  | D                                   | 542-545 |
| 159              | ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS<br>20, IORB = 8, TC ON, ELEV = -5 CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), ALPHA SWEEPS    | ELEVTR                | D                                   | 546-549 |
| 160              | ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS<br>30, IORB = 8, TC ON, ELEV = -5 CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), ALPHA SWEEPS  | STAB                  | D                                   | 550-553 |
| 161              | ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS<br>30, IORB = 8, TC ON, ELEV = -5 CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), ALPHA SWEEPS    | ELEVTR                | D                                   | 554-557 |
| 162              | ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS<br>10, IORB = 8, TC OFF, ELEV = -5 CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), ALPHA SWEEPS | STAB                  | D                                   | 558-561 |
| 163              | ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS<br>30, IORB = 8, TC OFF, ELEV = -5 CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), ALPHA SWEEPS | STAB                  | D                                   | 562-565 |

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| 164              | EFFECT OF TAILCONE, ALT CONF. IORB = 6,<br>FLAPS 20 CARRIER IN PRESENCE OF ORBITER<br>(MAIN BALANCE-ORBITER BALANCE), ALPHA<br>SWEEPS        | CONFIG.               | D                                    | 566-569 |
| 165              | FERRY CON. IN GROUND PROXIMITY, HORIZ OFF,<br>IORB = 3, TC ON CARRIER IN PRESENCE OF<br>ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS | ALPHAW                | E                                    | 570-572 |
| 166              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>IORB = 3, TC ON CARRIER IN PRESENCE OF<br>ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS  | ALPHAW                | E                                    | 573-575 |
| 167              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>IORB = 3, TC ON CARRIER IN PRESENCE OF<br>ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS  | ALPHAW                | E                                    | 576-578 |
| 168              | FERRY CON. IN GROUND PROXIMITY, STAB = -2,<br>IORB = 3, TC ON CARRIER IN PRESENCE OF<br>ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS | ALPHAW                | E                                    | 579-581 |
| 169              | FERRY CON. IN GROUND PROXIMITY, STAB = -2,<br>IORB = 3, TC ON CARRIER IN PRESENCE OF<br>ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS | ALPHAW                | E                                    | 582-584 |
| 170              | FERRY CON. IN GROUND PROXIMITY, STAB = -4,<br>IORB = 3, TC ON CARRIER IN PRESENCE OF<br>ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS | ALPHAW                | E                                    | 585-587 |

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| 171              | FERRY CON. IN GROUND PROXIMITY, STAB = -2,<br>ELEVTR = -23, IORB = 3, TC ON CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS | ALPHAW                | E                                   | 588-590 |
| 172              | FERRY CON. IN GROUND PROXIMITY, HORIZ OFF,<br>IORB = 6, TC ON CARRIER IN PRESENCE OF<br>ORBITER (MAIN BALANCE-ORBITER BALANCE), GP<br>SWEEPS               | ALPHAW                | E                                   | 591-593 |
| 173              | FERRY CON. IN GROUND PROXIMITY, STAB = 2,<br>ELEVTR = -23, IORB = 6, TC ON CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS  | ALPHAW                | E                                   | 594-596 |
| 174              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 6, TC ON CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS  | ALPHAW                | E                                   | 597-599 |
| 175              | FERRY CON. IN GROUND PROXIMITY, STAB = -2,<br>ELEVTR = -23, IORB = 6, TC ON CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS | ALPHAW                | E                                   | 600-602 |
| 176              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = 17, IORB = 6, TC ON CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS   | ALPHAW                | E                                   | 603-605 |
| 177              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 6, TC ON CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS  | ALPHAW                | E                                   | 606-608 |

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| 178              | FERRY CON. IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 10, IORB = 3, TC ON CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS    | ALPHAW                | E                                   | 609-611 |
| 179              | FERRY CON. IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 10, IORB = 3, TC ON CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS     | ALPHAW                | E                                   | 612-614 |
| 180              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 10, IORB = 3, TC ON CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS     | ALPHAW                | E                                   | 615-617 |
| 181              | FERRY CON. IN GROUND PROXIMITY, STAB = -2,<br>FLAPS 10, IORB = 3, TC ON CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS    | ALPHAW                | E                                   | 618-620 |
| 182              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 3, TC ON CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE), GP<br>SWEEPS | ALPHAW                | E                                   | 621-623 |
| 183              | FERRY CON. IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 20, IORB = 3, TC ON CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS    | ALPHAW                | E                                   | 624-626 |
| 184              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 20, IORB = 3, TC ON CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS     | ALPHAW                | E                                   | 627-629 |

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| 186              | FERRY CON. IN GROUND PROXIMITY, STAB = -4,<br>FLAPS 20, IORB = 3, TC ON CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS    | ALPHAW                | E                                   | 633-635 |
| 187              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 3, TC ON CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS | ALPHAW                | E                                   | 636-638 |
| 188              | FERRY CON. IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 20, IORB = 6, TC ON CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS    | ALPHAW                | E                                   | 639-641 |
| 189              | FERRY CON. IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 20, IORB = 6, TC ON CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS     | ALPHAW                | E                                   | 642-644 |
| 190              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 20, IORB = 6, TC ON CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS     | ALPHAW                | E                                   | 645-647 |
| 191              | FERRY CON. IN GROUND PROXIMITY, STAB = -2,<br>FLAPS 20, IORB = 6, TC ON CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS    | ALPHAW                | E                                   | 648-650 |

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| 192              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = 17, IORB = 6, TC ON CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS         | ALPHAW                | E                                   | 651-653 |
| 193              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 6, TC ON CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS        | ALPHAW                | E                                   | 654-656 |
| 194              | ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 10, IORB = 6, TC OFF CARR. IN PRESENCE<br>OF ORB. (MAIN BALANCE-ORB. BALANCE), GP<br>SWEEPS, W/SUCTION PUMP  | ALPHAW                | E                                   | 657-659 |
| 195              | ALT CONFIG IN GROUND PROXIMITY, STAB = 4,<br>FLAPS 10, IORB = 6, TC OFF CARR. IN PRESENCE<br>OF ORB. (MAIN BALANCE-ORB. BALANCE), GP<br>SWEEPS, W/SUCTION PUMP   | ALPHAW                | E                                   | 660-662 |
| 196              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 10, IORB = 6, TC OFF CARR. IN PRESENCE<br>OF ORB. (MAIN BALANCE-ORB. BALANCE), GP<br>SWEEPS, W/SUCTION PUMP   | ALPHAW                | E                                   | 663-665 |
| 197              | ALT CONFIG IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 10, IORB = 6, TC OFF CARR. IN PRESENCE<br>OF ORB. (MAIN BALANCE-ORB. BALANCE), GP<br>SWEEPS, W/SUCTION PUMP   | ALPHAW                | E                                   | 666-668 |
| 198              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 10, IORB = 6, TC OFF CARR. IN PRESENCE<br>OF ORB. (MAIN BALANCE-ORB. BALANCE), GP<br>SWEEPS, W/O SUCTION PUMP | ALPHAW                | E                                   | 669-671 |

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| 199              | ALT CONFIG IN GROUND PROXIMITY, STAB = 4,<br>FLAPS 10, IORB = 6, TC OFF CARR. IN PRESENCE<br>OF ORB. (MAIN BALANCE-ORB. BALANCE), GP<br>SWEEPS, W/O SUCTION PUMP | ALPHAW                | E                                   | 672-674 |
| 200              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 6, TC OFF CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS       | ALPHAW                | E                                   | 675-677 |
| 201              | ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 30, IORB = 6, TC OFF CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS          | ALPHAW                | E                                   | 678-680 |
| 202              | ALT CONFIG IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 30, IORB = 6, TC OFF CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS           | ALPHAW                | E                                   | 681-683 |
| 203              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 30, IORB = 6, TC OFF CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS           | ALPHAW                | E                                   | 684-686 |
| 204              | ALT CONFIG IN GROUND PROXIMITY, STAB = -2,<br>FLAPS 30, IORB = 6, TC OFF CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE) GP SWEEPS           | ALPHAW                | E                                   | 687-689 |
| 205              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 6, TC OFF CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS       | ALPHAW                | E                                   | 690-692 |

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| 207              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 8, TC ON CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS | ALPHAW                | E                                   | 696-698 |
| 208              | ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 30, IORB = 8, TC ON CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS    | ALPHAW                | E                                   | 699-701 |
| 209              | ALT CONFIG IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 30, IORB = 8, TC ON CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS     | ALPHAW                | E                                   | 702-704 |
| 210              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 30, IORB = 8, TC ON CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS     | ALPHAW                | E                                   | 705-707 |
| 211              | ALT CONFIG IN GROUND PROXIMITY, STAB = -2,<br>FLAPS 30, IORB = 8, TC ON CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS    | ALPHAW                | E                                   | 708-710 |
| 212              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 8, TC ON CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS | ALPHAW                | E                                   | 711-713 |



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| 213              | ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 10, IORB = 8, TC OFF CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS    | ALPHAW                | E                                   | 714-716 |
| 214              | ALT CONFIG IN GROUND PROXIMITY, STAB = 4,<br>FLAPS 10, IORB = 8, TC OFF CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS     | ALPHAW                | E                                   | 717-719 |
| 215              | ALT CONFIG IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 10, IORB = 8, TC OFF CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS     | ALPHAW                | E                                   | 720-722 |
| 216              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 10, IORB = 8, TC OFF CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS     | ALPHAW                | E                                   | 723-725 |
| 217              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 8, TC OFF CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS | ALPHAW                | E                                   | 726-728 |
| 218              | ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 30, IORB = 8, TC OFF CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS    | ALPHAW                | E                                   | 729-731 |
| 219              | ALT CONFIG IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 30, IORB = 8, TC OFF CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS     | ALPHAW                | E                                   | 732-734 |

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| 220              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 30, IORB = 8, TC OFF CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS     | ALPHAW                | E                                   | 735-737 |
| 221              | ALT CONFIG IN GROUND PROXIMITY, STAB = -2,<br>FLAPS 30, IORB = 8, TC OFF CARRIER IN PRESENCE<br>OF ORBITER (MAIN BALANCE-ORBITER BALANCE),<br>GP SWEEPS    | ALPHAW                | E                                   | 738-740 |
| 222              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 8, TC OFF CARRIER IN<br>PRESENCE OF ORBITER (MAIN BALANCE-ORBITER<br>BALANCE), GP SWEEPS | ALPHAW                | E                                   | 741-743 |
| VOLUME 2         |  |                       |                                     |         |
| 223              | FERRY CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS UP, IORB = 3, TC ON, ELEV = 0<br>ORBITER BALANCE DATA-ALPHA SWEEPS  | STAB                  | F                                   | 744-747 |
| 224              | FERRY CONFIG. STABILIZER EFFECTIVENESS<br>FLAPS 10, IORB = 3, TC ON, ELEV = 0,<br>ORBITER BALANCE DATA-ALPHA SWEEPS  | STAB                  | F                                   | 748-751 |
| 225              | FERRY CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS 20, IORB = 3, TC ON, ELEV = 0,<br>ORBITER BALANCE DATA-ALPHA SWEEPS                                       | STAB                  | F                                   | 752-755 |
| 226              | FERRY CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS 30, IORB = 3, TC ON, ELEV = 0<br>ORBITER BALANCE DATA-ALPHA SWEEPS  | ELEVTR, STAB,         | F                                   | 756-759 |

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| 227              | FERRY CONFIG. ELEVATOR EFFECTIVENESS,<br>FLAPS 10, IORB = 3, TC ON, ELEV = 0<br>ORBITER BALANCE DATA-ALPHA SWEEPS  | ELEVTR                | F                                   | 760-763 |
| 228              | FERRY CONFIG. ELEVATOR EFFECTIVENESS,<br>FLAPS 20, IORB = 3, TC ON, ELEV = 0<br>ORBITER BALANCE DATA-ALPHA SWEEPS  | ELEVTR                | F                                   | 764-767 |
| 229              | FERRY CONFIG. ELEVATOR EFFECTIVENESS,<br>FLAPS 30, IORB = 3, TC ON, ELEV = 0<br>ORBITER BALANCE DATA-ALPHA SWEEPS  | ELEVTR                | F                                   | 768-771 |
| 230              | ALT CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS UP, IORB = 6, TC ON, ELEV = 0<br>ORBITER BALANCE DATA-ALPHA SWEEPS  | STAB                  | F                                   | 772-775 |
| 231              | ALT CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS 20, IORB = 6, TC ON, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS | STAB                  | F                                   | 776-779 |
| 232              | ALT CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS 30, IORB = 6, TC ON, ELEV = 0<br>ORBITER BALANCE DATA-ALPHA SWEEPS  | STAB                  | F                                   | 780-783 |
| 233              | ALT CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS 30, IORB = 6, TC ON, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS | STAB                  | F                                   | 784-787 |
| 234              | ALT CONFIG. ELEVATOR EFFECTIVENESS,<br>FLAPS 30, IORB = 6, TC ON, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS   | ELEVTR                | F                                   | 788-791 |

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| 235              | ALT CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS UP, IORB = 6, TC OFF, ELEV = 0<br>ORBITER BALANCE DATA-ALPHA SWEEPS  | STAB                  | F                                   | 792-795 |
| 236              | ALT CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS 10, IORB = 6, TC OFF, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS | STAB                  | F                                   | 796-799 |
| 237              | ALT CONFIG. ELEVATOR EFFECTIVENESS,<br>FLAPS 10, IORB = 6, TC OFF, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS   | ELEVTR                | F                                   | 800-803 |
| 238              | ALT CONFIG. EFFECT OF LANDING GEAR,<br>FLAPS 10, IORB = 6, TC OFF, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS   | CONFIG.               | F                                   | 804-807 |
| 239              | ALT CONFIG. EFFECT OF SUGAR SCOOPS,<br>FLAPS 10, IORB = 6, TC OFF, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS   | CONFIG.               | F                                   | 808-811 |
| 240              | ALT CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS 20, IORB = 6, TC OFF, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS | STAB                  | F                                   | 812-815 |
| 241              | ALT CONFIG. EFFECT OF LANDING GEAR,<br>FLAPS 20, IORB = 6, TC OFF, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS   | CONFIG.               | F                                   | 816-819 |
| 242              | ALT CONFIG. ELEVATOR EFFECTIVENESS,<br>FLAPS 20, IORB = 6, TC OFF, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS   | STAB                  | F                                   | 820-823 |

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| 244              | ALT CONFIG. EFFECT OF LANDING GEAR,<br>FLAPS 30, IORB = 6, TC OFF, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS   | CONFIG.               | F                                   | 828-831 |
| 245              | ALT CONFIG. ELEVATOR EFFECTIVENESS,<br>FLAPS 30, IORB = 6, TC OFF, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS   | ELEVTR                | F                                   | 832-835 |
| 246              | ALT CONFIG. EFFECT OF SUGAR SCOOPS,<br>FLAPS 30, IORB = 6, TC OFF, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS   | CONFIG.               | F                                   | 836-839 |
| 247              | ALT CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS 20, IORB = 8, TC ON, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS  | STAB                  | F                                   | 840-843 |
| 248              | ALT CONFIG. ELEVATOR EFFECTIVENESS,<br>FLAPS 20, IORB = 8, TC ON, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS    | ELEVTR                | F                                   | 844-847 |
| 249              | ALT CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS 30, IORB = 8, TC ON, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS  | STAB                  | F                                   | 848-851 |
| 250              | ALT CONFIG. ELEVATOR EFFECTIVENESS,<br>FLAPS 30, IORB = 8, TC ON, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS    | ELEVTR                | F                                   | 852-855 |

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| 252              | ALT CONFIG. STABILIZER EFFECTIVENESS,<br>FLAPS 30, IORB = 8, TC OFF, ELEV = -5<br>ORBITER BALANCE DATA-ALPHA SWEEPS | STAB                  | F                                   | 860-863 |
| 253              | EFFECT OF TAILCONE, ALT CONF. IORB = 6,<br>FLAPS 20 ORBITER BALANCE DATA-ALPHA SWEEPS                               | CONFIG.               | F                                   | 864-867 |
| 254              | FERRY CON. IN GROUND PROXIMITY, HORIZ OFF,<br>IORB = 3, TC ON, ORBITER BALANCE DATA-GP<br>SWEEPS                    | ALPHAW                | C                                   | 868-870 |
| 255              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>IORB = 3, TC ON, ORBITER BALANCE DATA-GP<br>SWEEPS                     | ALPHAW                | C                                   | 871-873 |
| 256              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>IORB = 3, TC ON, ORBITER BALANCE DATA-GP<br>SWEEPS                     | ALPHAW                | C                                   | 874-876 |
| 257              | FERRY CON. IN GROUND PROXIMITY, STAB = -2,<br>IORB = 3, TC ON, ORBITER BALANCE DATA-GP<br>SWEEPS                    | ALPHAW                | C                                   | 877-879 |
| 258              | FERRY CON. IN GROUND PROXIMITY, STAB = -2,<br>IORB = 3, TC ON, ORBITER BALANCE DATA-GP<br>SWEEPS                    | ALPHAW                | C                                   | 880-882 |
| 259              | FERRY CON. IN GROUND PROXIMITY, STAB = -4,<br>IORB = 3, TC ON, ORBITER BALANCE DATA-GP SWEEPS                       | ALPHAW                | C                                   | 883-885 |

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| 260              | FERRY CON. IN GROUND PROXIMITY, STAB = -2,<br>ELEVTR = -23, IORB = 3, TC ON, ORBITER<br>BALANCE DATA-GP SWEEPS | ALPHAW                | C                                   | 886-888 |
| 261              | FERRY CON. IN GROUND PROXIMITY, HORIZ OFF,<br>IORB = 6, TC ON, ORBITER BALANCE DATA-GP<br>SWEEPS               | ALPHAW                | C                                   | 889-891 |
| 262              | FERRY CON. IN GROUND PROXIMITY, STAB = 2,<br>ELEVTR = -23, IORB = 6, TC ON, ORBITER<br>BALANCE DATA-GP SWEEPS  | ALPHAW                | C                                   | 892-894 |
| 263              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 6, TC ON ORBITER<br>BALANCE DATA-GP SWEEPS   | ALPHAW                | C                                   | 895-897 |
| 264              | FERRY CON. IN GROUND PROXIMITY, STAB = -2,<br>ELEVTR = -23, IORB = 6, TC ON ORBITER<br>BALANCE DATA-GP SWEEPS  | ALPHAW                | C                                   | 898-900 |
| 265              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = 17, IORB = 6, TC ON ORBITER<br>BALANCE DATA-GP SWEEPS    | ALPHAW                | C                                   | 901-903 |
| 266              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 6, TC ON ORBITER<br>BALANCE DATA-GP SWEEPS   | ALPHAW                | C                                   | 904-906 |
| 267              | FERRY CON. IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 10, IORB = 4, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS      | ALPHAW                | C                                   | 907-909 |

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| 269              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 10, IORB = 3, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 913-915 |
| 270              | FERRY CON. IN GROUND PROXIMITY, STAB = -2,<br>FLAPS 10, IORB = 3, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 916-918 |
| 271              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 3, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS | ALPHAW                | C                                   | 919-921 |
| 272              | FERRY CON. IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 20, IORB = 3, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 922-924 |
| 273              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 20, IORB = 3, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 925-927 |
| 274              | FERRY CON. IN GROUND PROXIMITY, STAB = -2,<br>FLAPS 20, IORB = 3, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 928-930 |
| 275              | FERRY CON. IN GROUND PROXIMITY, STAB = -4,<br>FLAPS 20, IORB = 3, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 931-933 |



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| 276              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 3, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS                  | ALPHAW                | C                                   | 934-936 |
| 277              | FERRY CON. IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 20, IORB = 6, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS                     | ALPHAW                | C                                   | 937-939 |
| 278              | FERRY CON. IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 20, IORB = 6, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS                      | ALPHAW                | C                                   | 940-942 |
| 279              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 20, IORB = 6, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS                      | ALPHAW                | C                                   | 943-945 |
| 280              | FERRY CON. IN GROUND PROXIMITY, STAB = -2,<br>FLAPS 20, IORB = 6, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS                     | ALPHAW                | C                                   | 946-948 |
| 281              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = 17, IORB = 6, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS                   | ALPHAW                | C                                   | 949-951 |
| 282              | FERRY CON. IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 6, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS                  | ALPHAW                | C                                   | 952-954 |
| 283              | ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 10, IORB = 6, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS, WITH SUCTION PUMP | ALPHAW                | C                                   | 955-957 |

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| FIGURE<br>NUMBER | TITLE   | CONDITIONS<br>VARYING | PLOTTED<br>COEFFICIENTS<br>SCHEDULE | PAGES   |
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| 284              | ALT CONFIG IN GROUND PROXIMITY, STAB = 4,<br>FLAPS 10, IORB = 6, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS, WITH SUCTION PUMP    | ALPHAW                | C                                   | 958-960 |
| 285              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 10, IORB = 6, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS, WITH SUCTION PUMP    | ALPHAW                | C                                   | 961-963 |
| 286              | ALT CONFIG IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 10, IORB = 6, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS, WITH SUCTION PUMP    | ALPHAW                | C                                   | 964-966 |
| 287              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 10, IORB = 6, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS, WITHOUT SUCTION PUMP | ALPHAW                | C                                   | 967-969 |
| 288              | ALT CONFIG IN GROUND PROXIMITY, STAB = 4,<br>FLAPS 10, IORB = 6, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS, WITHOUT SUCTION PUMP | ALPHAW                | C                                   | 970-972 |
| 289              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 6, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS                   | ALPHAW                | C                                   | 973-975 |
| 290              | ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 30, IORB = 6, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS                      | ALPHAW                | C                                   | 976-978 |
| 291              | ALT CONFIG IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 30, IORB = 6, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS                       | ALPHAW                | C                                   | 979-981 |

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| 292              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 30, IORB = 6, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 982-984   |
| 293              | ALT CONFIG IN GROUND PROXIMITY, STAB = -2,<br>FLAPS 30, IORB = 6, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 985-987   |
| 294              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 6, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS | ALPHAW                | C                                   | 988-990   |
| 295              | ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 20, IORB = 8, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 991-993   |
| 296              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 8, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS  | ALPHAW                | C                                   | 994-996   |
| 297              | ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 30, IORB = 8, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 997-999   |
| 298              | ALT CONFIG IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 30, IORB = 8, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS      | ALPHAW                | C                                   | 1000-1002 |
| 299              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 30, IORB = 8, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS      | ALPHAW                | C                                   | 1003-1005 |

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| 300              | ALT CONFIG IN GROUND PROXIMITY, STAB = -2,<br>FLAPS 30, IORB = 8, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 1006-1008 |
| 301              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 8, TC ON ORBITER BALANCE<br>DATA-GP SWEEPS  | ALPHAW                | C                                   | 1009-1011 |
| 302              | ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 10, IORB = 8, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 1012-1014 |
| 303              | ALT CONFIG IN GROUND PROXIMITY, STAB = 4,<br>FLAPS 10, IORB = 8, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 1015-1017 |
| 304              | ALT CONFIG IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 10, IORB = 8, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 1018-1020 |
| 305              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>FLAPS 10, IORB = 8, TC OFF ORBITER BALANCE                       | ALPHAW                | C                                   | 1021-1023 |
| 306              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 8, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS | ALPHAW                | C                                   | 1024-1026 |
| 307              | ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF,<br>FLAPS 30, IORB = 8, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 1027-1029 |

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| 308              | ALT CONFIG IN GROUND PROXIMITY, STAB = 2,<br>FLAPS 30, IORB = 8, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS     | ALPHAW                | C                                   | 1030-1032 |
| 309              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0<br>FLAPS 30, IORB = 8, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS      | ALPHAW                | C                                   | 1033-1035 |
| 310              | ALT CONFIG IN GROUND PROXIMITY, STAB = -2,<br>FLAPS 30, IORB = 8, TC OFF ORBITER BALANCE<br>DATA-GP SWEEPS    | ALPHAW                | C                                   | 1036-1038 |
| 311              | ALT CONFIG IN GROUND PROXIMITY, STAB = 0,<br>ELEVTR = -23, IORB = 8, TC OFF ORBITER<br>BALANCE DATA-GP SWEEPS | ALPHAW                | C                                   | 1039-1041 |

## PLOTTED COEFFICIENTS SCHEDULE:

- A)  $C_L$  versus  $\alpha_W$ ,  $\alpha_W$  versus  $C_m$ ,  $C_L$  versus  $C_m$ ,  $C_L$  versus  $C_D$
- B) CP14, CP25, CP36 versus  $\alpha_W$
- C)  $C_L$ ,  $C_D$ ,  $C_m$  versus GROUND PLANE
- D)  $\Delta C_L$  versus  $\alpha_W$ ,  $\alpha_W$  versus  $\Delta C_m$ ,  $\Delta C_L$  versus  $\Delta C_m$ ,  $\Delta C_L$  versus  $\Delta C_D$
- E)  $\Delta C_L$ ,  $\Delta C_D$ ,  $\Delta C_m$  versus GROUND PLANE
- F)  $C_L$  versus  $\alpha_0$ ,  $\alpha_0$  versus  $C_m$ ,  $C_L$  versus  $C_m$ ,  $C_L$  versus  $C_D$

NOMENCLATURE  
General

| <u>PLOT<br/>SYMBOL</u> | <u>MNEMONIC</u>  | <u>DEFINITION</u>  |
|------------------------|------------------|--|
| a                      |                  | speed of sound; m/sec, ft/sec                            |
| C <sub>p</sub>         | CP               | pressure coefficient; $(p_1 - p_\infty)/q$               |
| M                      | MACH             | Mach number; $V/a$                                       |
| p                      |                  | pressure; N/m <sup>2</sup> , psf                         |
| q                      | Q(NSM)<br>Q(PSF) | dynamic pressure; $1/2\rho V^2$ , N/m <sup>2</sup> , psf |
| RN/L                   | RN/L             | unit Reynolds number; per m, per ft                      |
| V                      |                  | velocity; m/sec, ft/sec                                  |
| $\alpha$               | ALPHA            | angle of attack, degrees                                 |
| $\beta$                | BETA             | angle of sideslip, degrees                               |
| $\psi$                 | PSI              | angle of yaw, degrees                                    |
| $\phi$                 | PHI              | angle of roll, degrees                                   |
| $\rho$                 |                  | mass density; kg/m <sup>3</sup> , slugs/ft <sup>3</sup>  |

Reference & C.G. Definitions

|                              |      |   |
|------------------------------|------|---|
| A <sub>b</sub>               |      | base area; m <sup>2</sup> , ft <sup>2</sup>                   |
| b                            | BREF | wing span or reference span; m, ft                            |
| c.g.                         |      | center of gravity   |
| $\bar{l}_{REF}$<br>$\bar{c}$ | LREF | reference length or wing mean<br>aerodynamic chord; m, ft     |
| S                            | SREF | wing area or reference area; m <sup>2</sup> , ft <sup>2</sup> |
|                              | MRP  | moment reference point  |
|                              | XMRP | moment reference point on X axis                              |
|                              | YMRP | moment reference point on Y axis                              |
|                              | ZMRP | moment reference point on Z axis                              |

SUBSCRIPTS

|          |                   |
|----------|-------------------|
| b        | base              |
| l        | local             |
| s        | static conditions |
| t        | total conditions  |
| $\infty$ | free stream       |

NOMENCLATURE  
(Continued)

Orbiter Stability-Axis System

| <u>PLOT<br/>SYMBOL</u> | <u>MNEMONIC</u> | <u>DEFINITION</u>  |
|------------------------|-----------------|--|
| $C_{L_o}$              | CL              | lift coefficient; $\frac{\text{lift}}{qS}$                               |
| $C_{D_o}$              | CD              | drag coefficient; $\frac{\text{drag}}{qS}$                               |
| $C_{Y_o}$              | CY              | side-force coefficient; $\frac{\text{side force}}{qS}$                   |
| $C_{D_b}$              | CDB             | base-drag coefficient; $\frac{\text{base drag}}{qS}$                     |
| $C_{D_f}$              | CDF             | forebody drag coefficient; $C_{D_o} - C_{D_b}$                           |
| $C_{m_o}$              | CIM             | pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$ |
| $C_{n_o}$              | CIN             | yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$           |
| $C_{l_o}$              | CSL             | rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$         |
| L/D                    | L/D             | lift-to-drag ratio; $C_L/C_D$  |

NOMENCLATURE  
(Continued)

747 Stability-Axis System

| <u>PLOT<br/>SYMBOL</u> | <u>MNEMONIC</u> | <u>DEFINITION</u>   |
|------------------------|-----------------|---|
| $C_L$                  | CL              | lift coefficient; $\frac{\text{lift}}{qS}$                                |
| $C_D$                  | CD              | drag coefficient; $\frac{\text{drag}}{qS}$                                |
| $C_Y$                  | CY              | side-force coefficient; $\frac{\text{side force}}{qS}$                    |
| $C_{D_b}$              | CDB             | base-drag coefficient; $\frac{\text{base drag}}{qS}$                      |
| $C_{D_f}$              | CDF             | forebody drag coefficient; $C_D - C_{D_b}$                                |
| $C_m$                  | CIM             | pitching-moment coefficient; $\frac{\text{pitching moment}}{-qS l_{REF}}$ |
| $C_n$                  | CLN             | yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$            |
| $C_l$                  | CSL             | rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$          |
| L/D                    | L/D             | lift-to-drag ratio; $C_L/C_D$   |



**NOMENCLATURE**  
(Additions to Standard List)

| <u>SYMBOL</u>    | <u>PLOT</u><br><u>SYMBOL</u> | <u>MINEMONIC</u> | <u>Definition</u>  |
|------------------|------------------------------|------------------|--|
| BSTA             |                              |                  | Carrier Fuselage station, in.  |
| BWL              |                              |                  | Carrier water line, in.  |
| FS               |                              |                  | Fuselage station, in.  |
| GP               |                              | GP               | Ground Height - Distance between $\frac{1}{4}$ MAC<br>747 CAM and the Ground Plane |
| H/B              |                              |                  | Ground Height (GP) divided by 747 CAM<br>wing span                                 |
| $i_{orb}$        |                              | IORB             | Orbiter incidence angle, degrees   |
| MS               |                              |                  | Model station, in.   |
| $S_i$            |                              |                  | Spoiler No. i deflection angle, deg.   |
| $S_{i-j}$        |                              |                  | Spoiler No. i through j deflection angle,<br>deg.                                  |
| WL               |                              |                  | Waterline, in.   |
| $X_c$            |                              | XC               | Carrier longitudinal station, in.  |
| $X_o$            |                              | XO               | Orbiter longitudinal station, in.  |
| $Y_c$            |                              | YC               | Carrier lateral station, in.   |
| $Y_o$            |                              | YO               | Orbiter lateral station, in.   |
| $Z_c$            |                              | ZC               | Carrier vertical station, in.  |
| $Z_o$            |                              | ZO               | Orbiter vertical station, in.  |
| $\alpha_c$       |                              | ALPHAC           | Carrier fuselage angle of attack, deg.   |
| $\alpha_o$       |                              | ALPHAO           | Orbiter angle of attack, $\alpha_o = i_{ORB} - 2^\circ + \alpha_w$ , deg.          |
| $\alpha_w$       |                              | ALPHAW           | Carrier wing angle of attack, $\alpha_w = \alpha_c + 2^\circ$ , deg.               |
| $\beta_c$        |                              | BETAC            | Carrier sideslip angle, deg.   |
| $\beta_o$        |                              | BETAO            | Orbiter sideslip angle, deg.   |
| $\Delta i_{ORB}$ |                              | DIORB            | Change in Orbiter incidence due to sup-<br>port strut/balance deflections, deg.    |
| $\delta_{EI}$    |                              | EIV-IB           | Carrier inboard elevator deflection, deg.  |
| $\delta_{EO}$    |                              | EIV-OB           | Carrier outboard elevator deflection, deg.   |

**NOMENCLATURE**  
(Additions to Standard List - Concluded)

| <u>PLOT<br/>SYMBOL</u> | <u>MNEMONIC</u> | <u>Definition</u>  |
|------------------------|-----------------|--|
| $\delta_E$             | ELEVON          | Orbiter elevon deflection angle, deg.                                      |
| $\delta_{BF}$          | BDFLAP          | Orbiter body flap deflection angle, deg.                                   |
| $\delta_{RL}$          | RUD-L           | Carrier lower rudder panel deflection angle, deg.                          |
| $\delta_{RU}$          | RUD-U           | Carrier upper rudder panel deflection angle, deg.                          |
| $\delta_R$             | RUDDER          | Orbiter rudder deflection angle, deg.                                      |
| $\delta_{SP}$          | SPOIL           | Carrier spoiler deflection angle, deg.                                     |
| $\delta_{WDP}$         | STAB            | Carrier horizontal stabilizer deflection angle, with respect to wing, deg. |
| $C_{P14}$              | CP14            | Average of base pressures CP1 and CP4                                      |
| $C_{P25}$              | CP25            | Average of base pressures CP2 and CP5                                      |
| $C_{P36}$              | CP36            | Average of base pressures CP3 and CP6                                      |
|                        | ELEVTR          | Carrier elevator deflection angle, deg.                                    |

## CONFIGURATIONS INVESTIGATED

The models tested included the 0.04 scale model of the basic 747 and the 0.0405 scale model Orbiter mounted to the 747 CAM in the ferry and four ALT configurations (Reference 2). The 747 CAM was not tested and only the ferry and ALT configurations were tested in ground proximity.

The 747 model represented the 747-100 (NASA N905NA) aircraft as closely as possible using existing model parts. The 747 model (AX12841-6) was mounted on the Boeing 635 balance which in turn was mounted to the Boeing 506 swept strut/sting mount. The Orbiter model was mounted to the Boeing 6176 balance which was mounted rigidly to the 747 model by one forward and two aft support struts (Figures 2g and 2h). Model installation photographs are shown in Figures 3a through 3g.

The 747 swept strut/sting is shown schematically in Figure 2i. The strut was located under the 747 for free air testing, from the top of the aft body of the 747 for free air testing, from the top of the aft body of the 747 for ground effects testing and from the top of the fuselage (same body station as belly strut mount) for tunnel upflow evaluations. The model was located approximately on the tunnel centerline for free air testing. For ground proximity effects testing, the model was located at approximately 4, 10, 30, 60, 95, and 135 feet (full scale) measured from the bottom of the aft wing wheels to the tunnel floor. This series of ground height tests was an expansion of the initial plan which required one ground height. Testing procedures required this type of run series to obtain data at minimum ground height for varying angles of attack.

### CONFIGURATIONS INVESTIGATED (Concluded)

Trip strips were located on the orbiter and carrier models as shown in Figures 2j and 2k to insure a controlled turbulent boundary layer.

The carrier horizontal stabilizer angle was set by an electric motor installed in the carrier tail which was remotely controlled. A detailed description of all model parts is contained in Table III.

The basic configuration changes were orbiter on and off, orbiter incidence angles of  $3^\circ$ ,  $6^\circ$  and  $8^\circ$ ; carrier flap settings of up, 10, 20 and 30; landing gear on and off; orbiter tailcone on and off; carrier stabilizer settings of  $+2^\circ$  to  $-6^\circ$ ; orbiter elevon settings of 0 and  $-5^\circ$ ; carrier elevator angles of  $17^\circ/17^\circ$ ,  $10^\circ/10^\circ$ ,  $1^\circ/1^\circ$ ,  $-10^\circ/-10^\circ$ ,  $-23^\circ/-23^\circ$ ; and the models in free air and ground proximity. A typical ground proximity test was conducted by setting the carrier angle of attack, lowering the model to close proximity to the tunnel floor and then raising the model to various heights above the floor (4 through 135 feet full scale).

The configurations tested are summarized below:

747 Alone

747/Orbiter - Ferry Configuration ( $i_o = 3^\circ$ )

747/Orbiter - ALT Configurations ( $i_o = 6^\circ$ , and  $8^\circ$ , T/C On and off)

747 Tested upright and inverted for tunnel upflow evaluation.

The model was mounted on a swept blade sting from below for free air testing and from a vertical tail location for ground proximity effect as shown in Figure 2i.

## INSTRUMENTATION

Six component balances were used to measure 747 carrier and orbiter forces and moments. The 747 carrier was mounted on the Boeing 635 balance. The orbiter was mounted to the Boeing 6176 balance.

Six static pressure taps were located on the 747 fore-body (3 on each side) as shown in figure 22 to measure the orbiter effects on the air data system and sideslip angle indicator.

Three-quarter inch long yarn tufts were located on the 747 upper wing surface for some runs to allow observation of stall progression. The tufts were located approximately 1" apart both spanwise and chordwise. Two rows were parallel to the wing leading edge; the first row about 1/4" aft of the leading edge and the next row about 1" aft. Two spanwise rows were placed parallel to the wing trailing edge, the first row was near the trailing edge and the other row was 1 inch forward of the trailing edge. An additional row of tufts was put between the two forward and two aft rows and split the distance between them from the root to about half way out from the wing root. Two rows of tufts were located on the inboard flaps one row on the inboard aileron and one row on the outboard flaps. Two runs were conducted with the tufts. Photographs of flow patterns shown during these runs can be obtained from the aerodynamics analysis engineers.

#### TEST FACILITY DESCRIPTION

The Langley V/STOL facility is a closed circuit, single return, continuous flow, atmospheric type wind tunnel, which can be operated as a closed tunnel with slotted walls or as one or more open configurations by removing the side walls and ceiling. The speed in the 14.5 foot high by 21.75 foot wide by 50 foot long test section is variable from 0 to 200 knots. This tunnel has a contraction ratio of 9 to 12 and is powered by an 8000 hp. main drive.

This tunnel is capable of force, moment and pressure studies. A moving belt ground board with boundary layer suction and variable speed capabilities for operation at test section flow velocities can be installed for ground effects tests. A universal model support system utilizes a three joint rotary sting with  $\pm 45^\circ$  of pitch,  $\pm 45^\circ$  of yaw and 6 feet of vertical traverse. This system is mounted on a horizontal turntable with  $\pm 165^\circ$  of rotation. Models can be powered with either high pressure air (15 lb/sec at 5,000 psia) or variable frequency electric systems. Data are recorded with 60 channels and reduced off site.

## DATA REDUCTION

All aerodynamic forces and moments acting on the combined 747 and Orbiter, were reduced to stability axis coefficients using carrier reference dimensions and reference moment center (Figure 2f).

Subsequently, the data were corrected for

- . tunnel upflow
- . tunnel blockage
- . tunnel wall interference

In the following paragraphs, each of these wind tunnel corrections will be discussed in detail.

The upflow was measured in the LARC V/STOL wind tunnel by testing the 747 model in the upright and inverted position at three different heights (87, 65 and 45 inches above the tunnel floor), and it was 0.15 degrees for all three heights. Therefore, all "free air" data, 747 as well as Orbiter, were corrected for an upflow of 0.15 degrees.

The "ground effect" data were also corrected for upflow, but the correction varied with height above the tunnel floor. As it was impossible to measure the upflow angle near the ground, it was decided to calculate the upflow angle. This was done by assuming that the upflow angle at the floor boundary layer displacement thickness was  $\delta^*/dx$  and that the upflow angle at the wall was zero. Furthermore, it was assumed that the upflow angle varied with height according to a power law. These assumptions led to the following expression for the upflow angle.

$$\Delta \alpha_u = 0.15 \frac{Y}{87} \frac{1}{10.96}$$

where: Y = the height of the 0.25 MAC of the 747 wing above the tunnel floor in inches.

The "ground effect" data were corrected by calculating the upflow angle for a given height of the 0.25 MAC of the 747 wing above the tunnel floor and applying this upflow angle to both the 747 carrier and the Orbiter.

All data were corrected for tunnel blockage effects (reference 3) by multiplying the measured dynamic pressure,  $q_{meas}$ , by a factor  $(1 + 2 E_T)$  as shown on the next page.

# DATA REDUCTION (Continued)

$$q_{\text{corr}} = q_{\text{meas}} (1 + 2 E_T)$$

where:

$$E_T = E_{\text{SB}} + E_{\text{WB}}$$

$E_{\text{SB}}$  = solid blockage factor

$E_{\text{WB}}$  = wake blockage factor

The solid blockage factor,  $E_{\text{SB}}$ , was 0.00108 for the 747 alone and 0.00141 for the 747/Orbiter configuration (using standard methods described in reference 3). These values include the 506 swept blade strut. The wake blockage factor,  $E_{\text{WB}}$ , was determined as follows:

$$E_{\text{WB}} = \frac{1}{4} \frac{S}{C} C_{D_0} + 5 \frac{S}{4C} (C_D - C_{D_0} - C_{D_1})$$

$$\text{where: } C_{D_0} = C_{D_{\alpha_w=0}} - (0.04573 + A_2) C_{L_{\alpha_w=0}}^2$$

$$C_{D_1} = 0.04573 C_L^2 + A_2 C_{L_{\alpha_w=0}}^2$$

where:  $A_2 = 0$  for flap up

$A_2 = 0.03016$  for flap down

(reference 4)

Both the "free-air" and "ground effect" data were corrected for wind tunnel wall interference using the following equation:

$$\Delta \alpha_w = \delta_{\text{WC}} \frac{S}{C} (57.295) C_{L_{\text{tail off}}}$$

However, the constant,  $\delta_{\text{WC}}$ , is 0.1157 for the free air data and  $\delta_{\text{WC}}$  is a function of the model height for the "ground effect" data. These corrections apply for both the 747, the Orbiter, and the mated configurations.

For the horizontal tail, the wall interference correction is:

$$\Delta \alpha_t = - \delta_{\text{WC}} \frac{S}{C} (57.295) C_{L_{\text{tail off}}}$$

where:  $\delta_{\text{WC}} = 0.0062$  for "free air" data

but:  $\delta_{\text{WC}} = 0$  for "ground effect" data



# DATA REDUCTION - (Continued)

The final data reduction was performed in two steps:

Step One: All aerodynamic coefficients were corrected for blockage effects as described above

Step Two: All aerodynamic coefficients were then recomputed by rotating the lift and drag coefficients through an angle  $\Delta\alpha$  which is the sum of the wall induced upflow  $\Delta\alpha_{WC}$  and the upflow  $\Delta\alpha_u$  as described in the preceding paragraphs.

The corrected lift and drag coefficients are:

$$\begin{aligned} C_L &= C_{L_{meas}} \cos \Delta\alpha - C_{D_{meas}} \sin \Delta\alpha \\ C_D &= C_{D_{meas}} \cos \Delta\alpha + C_{L_{meas}} \sin \Delta\alpha \end{aligned}$$

The pitching moment coefficients are also corrected using the following equation:

$$C_M = C_{M_{meas}} + \Delta\alpha_t \frac{\partial C_M}{\partial \alpha}$$

Orbiter aerodynamic coefficients measured about the orbiter moment reference point were transferred to the carrier moment reference center. (See Figure 2f). The transfer distances used are a function of orbiter incidence angle ( $i_{orb}$ ). Equations used in computing the X and Z coordinate transfer distances are given below:

$$\begin{aligned} X &= 10.684 - 9.477 \cos (27.336 + i_{orb}) \\ Z &= 8.368 + 9.477 \sin (27.336 + i_{orb}) \end{aligned}$$

All aerodynamic forces and moments were reduced to coefficient form in stability axis systems, utilizing carrier reference dimensions:

| <u>Symbol</u> | <u>Description</u>                  | <u>Model Scale</u> | <u>Full Scale</u> |
|---------------|-------------------------------------|--------------------|-------------------|
| S             | 747 wing area, ft <sup>2</sup>      | 8.8                | 5500              |
| b             | 747 wing span, in.                  | 93.92              | 2348              |
| $\bar{c}$     | 747 wing mean aerodynamic chord, in | 13.112             | 327.8             |

DATA REDUCTION - (Concluded).

| <u>Symbol</u>    | <u>Description</u>  | <u>Model<br/>Scale</u> | <u>Full<br/>Scale</u> |
|------------------|---|------------------------|-----------------------|
| X <sub>MRP</sub> | 747 longitudinal moment reference point, in. X <sub>c</sub> | 53.596                 | 1339.91               |
| Y <sub>MRP</sub> | 747 lateral moment reference point, in. Y <sub>c</sub>      | 0.0                    | 0.0                   |
| Z <sub>MRP</sub> | 747 vertical moment reference point, in. Z <sub>c</sub>     | 7.63                   | 190.75                |
| X <sub>MRB</sub> | 747 longitudinal balance moment center, in. X <sub>c</sub>  | 54.596                 | 1364.90               |
| Y <sub>MRB</sub> | 747 lateral balance moment center in. Y <sub>c</sub>        | 0.0                    | 0.0                   |
| Z <sub>MRB</sub> | 747 vertical balance moment center, in. Z <sub>c</sub>      | 9.25                   | 231.25                |

Aerodynamic forces and moments measured by the Orbiter internal balance were reduced to coefficient form in stability axis systems utilizing Orbiter reference dimensions. Orbiter reference dimensions are:

| <u>Symbol</u>    | <u>Description</u>  | <u>Model<br/>Scale</u> | <u>Full<br/>Scale</u> |
|------------------|---|------------------------|-----------------------|
| S                | Orbiter wing area, ft <sup>2</sup>                          | 4.412                  | 2690                  |
| b                | Orbiter wing span, in.                                      | 37.935                 | 936.68                |
| c                | Orbiter wing mean aerodynamic chord, in.                    | 19.230                 | 474.81                |
| X <sub>MRP</sub> | Orbiter longitudinal moment reference, in. X <sub>o</sub>   | 44.914*                | 1109.0                |
| Y <sub>MRP</sub> | Orbiter lateral moment reference point, in. Y <sub>o</sub>  | 0.0*                   | 0.0                   |
| Z <sub>MRP</sub> | Orbiter vertical moment reference point, in. Z <sub>o</sub> | 15.188*                | 375.0                 |

\* Orbiter moment reference center is also Orbiter balance moment reference center.

Average base pressure coefficients were calculated as follows:

$$C_{P14} = (C_{P1} + C_{P4})/2$$

$$C_{P25} = (C_{P2} + C_{P5})/2$$

$$C_{P36} = (C_{P3} + C_{P6})/2$$

## RESULTS AND DISCUSSION

The data from this test correlates well with existing free air low speed aerodynamic characteristics and has provided a data base to define low speed aerodynamic characteristics in pitch for mated CAM/Orbiter configurations for take off and landing and to define ground proximity effects. The use of faired Orbiter Support Struts instead of the current unfaired design does not significantly affect the pitch axis stability and control results obtained.

The significant test results affecting the performance, stability, and control characteristics of the 747 in combination with the Space Shuttle Orbiter configuration are:

- ① The maximum lift coefficients of the mated configurations are greater than of the 747 alone configurations and increase with increasing Orbiter incidence angle.
- ② The wing angle of attack of the mated configurations at lift-off is less than that of the corresponding configurations in free air (e.g. at Flap 10;  $1.3, \Delta\alpha = -1.8^\circ$ ). This ground effect is similar to that on the basic 747.
- ③ The Orbiter has a small effect on the position error corrections for airspeed and altitude (less than 2 knots on the airspeed and less than 80 feet on altitude.)
- ④ Static longitudinal stability is reduced at Flaps 20 and 30 (up to 0.10  $\bar{c}$  for Orbiter incidence =  $8^\circ$  with tailcone off) compared to the basic 747. This may affect the choice of aft c.g. for some AIII operations.
- ⑤ Mated configuration stabilizer effectiveness is comparable to that of the basic 747. Effectiveness is reduced slightly with increasing Orbiter incidence.
- ⑥ Trailing edge down elevator effectiveness is comparable to the basic 747 values. Trailing edge up elevator effectiveness is reduced up to 25% at Flaps 20 and 30 for the highest Orbiter incidence angle of  $8^\circ$ . At this incidence angle there will be some loss of stabilizer mistrim takeoff capability. There is sufficient trailing edge up elevator

## RESULTS AND DISCUSSION - (Concluded).

control for landing flare and go-around.

- Effect of ground proximity on mated configuration pitch characteristics and control effectiveness was found to be similar to that determined for the basic 747 from previous testing.
- The "pitch-up loop" at stall is slightly more adverse for the mated configurations than for the basic 747 for flap 30. Nose-down elevator authority is adequate to compensate for this additional nose-up pitching moment should an inadvertent stall occur.

#### REFERENCES

1. Boeing DTF CAM 75-0009 "Summary Preliminary CA8 Test Results," September 24, 1975
2. Louisse, J. Boeing Document D180-18382-1, "Pretest Information for Testing the 747/Orbiter in the NASA Langley V/STOL Transition Research Wind Tunnel," August 11, 1975
3. Pope, A "Low-Speed Wind Tunnel Testing" Chapter 5, John Wiley and Sons, Inc., New York/London.
4. T.L. Wimer "Principles and Operational Procedures of the UWAL Data Reduction Programs," UWAL Report IV-D, December 1966

### TABLE I

[illegible]

BALANCE UTILIZED: 747-Boeing 635D Internal  
Orbiter-Boeing 6176B Internal

|    | CAPACITY:<br>747 Balance | Capacity<br>Orbiter Balance | COEFFICIENT<br>TOLERANCE: |
|----|--------------------------|-----------------------------|---------------------------|
| NF | <u>3160 LB</u>           | <u>1000 LB</u>              | <u>          </u>         |
| SF | <u>1580 LB</u>           | <u>500 LB</u>               | <u>          </u>         |
| AF | <u>240 LB</u>            | <u>130 LB</u>               | <u>          </u>         |
| PM | <u>9000 IN-LB</u>        | <u>2000 IN-LB</u>           | <u>          </u>         |
| RM | <u>4200 IN-LB</u>        | <u>800 IN-LB</u>            | <u>          </u>         |
| YM | <u>4200 IN-LB</u>        | <u>800 IN-LB</u>            | <u>          </u>         |

COMMENTS: 1. "747" Model was mounted on the 635D internal balance and measured 747 and 747 + Orbiter loads.

2. The Orbiter was mounted on the 6176B internal balance and measured orbiter loads while mounted on the 747.

TABLE II.

| TEST : CA8(LRC VSTOL 129)   |   |              | DATA SET/RUN NUMBER COLLATION SUMMARY |              |              |               |            |               |  |              |  |  | DATE : 0/16/75 |  |  |  |
|---|---|--------------|---------------------------------------|--------------|--------------|---------------|------------|---------------|--|--------------|--|--|----------------|--|--|--|
| DATA SET IDENTIFIER   | CONFIGURATION   | CARRIER      |                                       |              |              | ORBITER       |            |               |  | MACH NUMBERS |  |  |                |  |  |  |
|   |   | $\alpha$     | $\beta$                               | $\delta$     | $\delta_e$   | $\delta_{OR}$ | $\delta_e$ | $\delta_{BF}$ |  |              |  |  |                |  |  |  |
| RJFO01  | K <sub>1</sub> V <sub>9.1.2</sub> TS <sub>1</sub>                   | $\Delta$     | 0                                     | -            | -            |               |            |               |  |              |  |  |                |  |  |  |
| 02  | H <sub>15.1</sub>   | $\downarrow$ | T                                     | 3            | 0            |               |            |               |  |              |  |  |                |  |  |  |
| 03  | F <sub>10</sub> TS <sub>2</sub>                                     | $\Delta$     |                                       | -2           | T            |               |            |               |  |              |  |  |                |  |  |  |
| 04  | F <sub>10</sub> TS <sub>2</sub>                                     | $\Delta$     |                                       | T            | $\downarrow$ |               |            |               |  |              |  |  |                |  |  |  |
| 05  |   | $\downarrow$ |                                       |              | 17           |               |            |               |  |              |  |  |                |  |  |  |
| 06  |   | $\Delta$     |                                       |              | 10           |               |            |               |  |              |  |  |                |  |  |  |
| 07  | LOOSE TAPE ON RH. STRAB NL.   |              |                                       |              | -10          |               |            |               |  |              |  |  |                |  |  |  |
| 08  |   |              |                                       |              | -10          |               |            |               |  |              |  |  |                |  |  |  |
| 09  |   |              |                                       | $\downarrow$ | -23          |               |            |               |  |              |  |  |                |  |  |  |
| 10  |   |              |                                       | -4           | 0            |               |            |               |  |              |  |  |                |  |  |  |
| 11  |   |              |                                       | 0            | T            |               |            |               |  |              |  |  |                |  |  |  |
| 12  | Y G <sub>5.3.5</sub>  | $\downarrow$ |                                       | -2           | $\downarrow$ |               |            |               |  |              |  |  |                |  |  |  |
| 13  | K <sub>1</sub> V <sub>9.1.2</sub> F <sub>20</sub> H <sub>15.1</sub> | $\Delta$     |                                       | -            | -            |               |            |               |  |              |  |  |                |  |  |  |
| 14  | F <sub>20</sub> H <sub>15.1</sub>                                   | $\downarrow$ |                                       | -            | -            |               |            |               |  |              |  |  |                |  |  |  |
| 15  | H <sub>15.1</sub>   | $\Delta$     |                                       | -6           | 0            |               |            |               |  |              |  |  |                |  |  |  |
| 16  |   | $\downarrow$ |                                       | -4           | T            |               |            |               |  |              |  |  |                |  |  |  |
| 17  |   | $\Delta$     |                                       | -2           |              |               |            |               |  |              |  |  |                |  |  |  |
| 18  | G <sub>5.3.5</sub>  | $\Delta$     | $\downarrow$                          | -2           | $\downarrow$ |               |            |               |  |              |  |  |                |  |  |  |
| TUNNEL RUN NUMBER CORRESPONDS TO LAST THREE DIGITS OF THE DATA SET IDENTIFIER |   |              |                                       |              |              |               |            |               |  |              |  |  |                |  |  |  |
| 151 RUN NUMBERS   |   |              |                                       |              |              |               |            |               |  |              |  |  |                |  |  |  |

|   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |      |     |     |                 |  |   |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|------|------|-----|-----|-----------------|--|---|--|--|--|--|
| R D/S (CARRIER, DATA - CARRIER REFERENCE) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 37   | 43   | 49   | 55  | 61  | 67(OR) GP 75 76 |  |   |  |  |  |  |
| BETA, Q(P.S.F.) ICL                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ICD  | ICLM | ICLN | GSL | IGY | MACH ALPHAW     |  |   |  |  |  |  |
| COEFFICIENTS                              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\Delta \alpha = -2^\circ$ to $26^\circ$ , $\Delta = 2^\circ$  |      |      |     |     |                 |  | $\Delta \alpha = -2^\circ$ to $14^\circ$ , $\Delta = 2^\circ$ & $14^\circ$ to $26^\circ$ , $\Delta = 1^\circ$ |  |  |  |  |
| SCHEDULES                                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\Delta \alpha = -2^\circ$ to $4^\circ$ , $\Delta = 2^\circ$ & $14^\circ$ to $26^\circ$ , $\Delta = 1^\circ$ |      |      |     |     |                 |  |   |  |  |  |  |

\* Nominal Mach = 0.155 + 0.001 except d/s 366, 367 Mach = 0.186, d/s 368, 369 = 0.204

\* P & T schedule of coefficients follow on the next two pages

K<sub>1</sub> = B29BW45M25M26N57N58T14 (Bottom support sting)

TABLE II. Continued

| TEST : CA8(LRC VSTOL.129)                                   |                           |          |         | DATA SET/RUN NUMBER COLLATION SUMMARY |            |                |            |               |  |              |  |  |  | DATE : 0/16/75 |  |  |  |
|---|---------------------------|----------|---------|---------------------------------------|------------|----------------|------------|---------------|--|--------------|--|--|--|----------------|--|--|--|
| DATA SET IDENTIFIER   | CONFIGURATION             | CARRIER  |         |                                       |            | ORBITER        |            |               |  | MACH NUMBERS |  |  |  |                |  |  |  |
|   |                           | $\alpha$ | $\beta$ | $\delta$                              | $\delta_e$ | $\delta_{ORB}$ | $\delta_e$ | $\delta_{BF}$ |  |              |  |  |  |                |  |  |  |
| RJFO19  | K1V9.1.2 F20 H15.1        | $\Delta$ | 0       | -4                                    | 17         |                |            |               |  |              |  |  |  |                |  |  |  |
| 20  |                           |          |         |                                       |            |                |            |               |  |              |  |  |  |                |  |  |  |
| 21  |                           |          |         |                                       |            |                |            |               |  |              |  |  |  |                |  |  |  |
| 22  |                           |          |         |                                       |            |                |            |               |  |              |  |  |  |                |  |  |  |
| 23  | K1V9.1.2 F30 H15.1 G5.3.5 |          |         |                                       |            |                |            |               |  |              |  |  |  |                |  |  |  |
| 24  |                           |          |         |                                       |            |                |            |               |  |              |  |  |  |                |  |  |  |
| 25  | LOOSE TAPE ON STAB        |          |         |                                       |            |                |            |               |  |              |  |  |  |                |  |  |  |
| 26  |                           |          |         |                                       |            |                |            |               |  |              |  |  |  |                |  |  |  |
| 27  |                           |          |         |                                       |            |                |            |               |  |              |  |  |  |                |  |  |  |
| 28  |                           |          |         | -6                                    | 0          |                |            |               |  |              |  |  |  |                |  |  |  |
| 29  |                           | Y        |         | -4                                    |            |                |            |               |  |              |  |  |  |                |  |  |  |
| 30  | LOOSE TAPE ON STAB        | $\Delta$ |         | -2                                    |            |                |            |               |  |              |  |  |  |                |  |  |  |
| 31  |                           |          |         | -2                                    | Y          |                |            |               |  |              |  |  |  |                |  |  |  |
| 32  | K1V9.1.2 F30 G5.3.5       | Y        |         | -                                     | -          |                |            |               |  |              |  |  |  |                |  |  |  |
| 33  |                           | 8        |         |                                       |            |                |            |               |  |              |  |  |  |                |  |  |  |
| 34  |                           | $\Delta$ |         |                                       |            |                |            |               |  |              |  |  |  |                |  |  |  |
| 35  | K2V9.1.2 F30 H15.6.1      | $\Delta$ |         | -6                                    | 0          | 3              | 0          | -11.7         |  |              |  |  |  |                |  |  |  |
| 36  |                           |          |         | -6                                    | 0          | 3              | 0          | -11.7         |  |              |  |  |  |                |  |  |  |
| P D/S (CARRIER NOSE PRESSURE DATA)                          |                           |          |         |                                       |            |                |            |               |  |              |  |  |  |                |  |  |  |
| BETA, (G(P.S.F.)) CP1, CP2, CP3, CP4, CP5, CP6, MACH, ALPHA |                           |          |         |                                       |            |                |            |               |  |              |  |  |  |                |  |  |  |
| COEFFICIENTS  |                           |          |         |                                       |            |                |            |               |  |              |  |  |  |                |  |  |  |
| SCHEDULES   |                           |          |         |                                       |            |                |            |               |  |              |  |  |  |                |  |  |  |

Nominal Mach = 0.155  $\pm$  0.001 except d/s 366,367 Mach = 0.186. d/s 368,369 = 0.204

$$K_2 = K_1 + AT_{107} + AT_{111.4} \quad (\text{CAM kit for ferry})$$



TABLE II. Continued

| TEST : CA8(LRC VSTOL 129)                                     |  |              | DATA SET/RUN NUMBER COLLATION SUMMARY |          |              |                |              |               |  |  |  |              | DATE : 0/16/75 |  |           |    |    |           |    |          |       |
|---|--|--------------|---------------------------------------|----------|--------------|----------------|--------------|---------------|--|--|--|--------------|----------------|--|-----------|----|----|-----------|----|----------|-------|
| DATA SET IDENTIFIER   | CONFIGURATION                                      | CARRIER      |                                       |          |              | ORBITER        |              |               |  |  |  | MACH NUMBERS |                |  |           |    |    |           |    |          |       |
|   |  | $\alpha$     | $\beta$                               | $\delta$ | $\delta_e$   | $\delta_{ORB}$ | $\delta_e$   | $\delta_{BF}$ |  |  |  |              |                |  |           |    |    |           |    |          |       |
| RJF037  | $K_2 V_{9.1.2} F_{30} H_{15.6.1} G_{5.3.5}$        | $\Delta$     | 0                                     | -4       | 0            | 3              | 0            | -11.7         |  |  |  |              |                |  |           |    |    |           |    |          |       |
| 38  | $\overbrace{O_1 T_{55} T_{54}}$                    | $\Delta$     |                                       | -2       | 0            |                |              |               |  |  |  |              |                |  |           |    |    |           |    |          |       |
| 39  |  | $\Delta$     |                                       | -4       | 17           |                |              |               |  |  |  |              |                |  |           |    |    |           |    |          |       |
| 40  |  |              |                                       |          | 10           |                |              |               |  |  |  |              |                |  |           |    |    |           |    |          |       |
| 41  |  |              |                                       |          | -10          |                |              |               |  |  |  |              |                |  |           |    |    |           |    |          |       |
| 42  |  |              |                                       |          | -23          |                |              |               |  |  |  |              |                |  |           |    |    |           |    |          |       |
| 43  | $K_2 V_{9.1.2} F_{30} G_{5.3.5} O_1 T_{55} T_{54}$ |              |                                       | -        | -            | $\downarrow$   |              |               |  |  |  |              |                |  |           |    |    |           |    |          |       |
| 44  | $K_3$  |              |                                       | -        | -            | 6              |              |               |  |  |  |              |                |  |           |    |    |           |    |          |       |
| 45  | $\overbrace{H_{15.6.1}}$                           |              |                                       | -4       | 0            |                |              |               |  |  |  |              |                |  |           |    |    |           |    |          |       |
| 46  |  |              |                                       | 0        |              |                |              |               |  |  |  |              |                |  |           |    |    |           |    |          |       |
| 47  |  | $\downarrow$ |                                       | 3        |              |                |              |               |  |  |  |              |                |  |           |    |    |           |    |          |       |
| 48  |  | $\Delta$     |                                       | -2       | $\downarrow$ |                | $\downarrow$ |               |  |  |  |              |                |  |           |    |    |           |    |          |       |
| 49  |  | $\Delta$     |                                       | -2       | 17           |                | -5           |               |  |  |  |              |                |  |           |    |    |           |    |          |       |
| 50  |  |              |                                       |          | 10           |                |              |               |  |  |  |              |                |  |           |    |    |           |    |          |       |
| 51  |  |              |                                       |          | -10          |                |              |               |  |  |  |              |                |  |           |    |    |           |    |          |       |
| 52  |  |              |                                       |          | -23          |                |              |               |  |  |  |              |                |  |           |    |    |           |    |          |       |
| 53  |  | $\downarrow$ |                                       | -4       | 0            |                |              |               |  |  |  |              |                |  |           |    |    |           |    |          |       |
| 54  |  | $\Delta$     | $\downarrow$                          | -2       | 0            | $\downarrow$   | $\downarrow$ | $\downarrow$  |  |  |  |              |                |  |           |    |    |           |    |          |       |
| T DIS (ORBITER DATA TO ORBITER REFERENCE)                     |  |              |                                       |          |              |                |              |               |  |  |  |              |                |  | 37        | 43 | 49 | 55        | 61 | 67(OR)GP | 75 76 |
| BETA, Q(PSE), ALPHA, CL, CD, CLM, CT, CLN, CSL, IMACH, ALPHAW |  |              |                                       |          |              |                |              |               |  |  |  |              |                |  |           |    |    |           |    |          |       |
| COEFFICIENTS  |  |              |                                       |          |              |                |              |               |  |  |  |              |                |  | 12VAR (1) |    |    | 12VAR (2) |    |          | NDV   |
| SCHEDULES   |  |              |                                       |          |              |                |              |               |  |  |  |              |                |  |           |    |    |           |    |          |       |

\*Nominal Mach = 0.155  $\pm$  0.001 except d/s 366,367 Mach = 0.186. d/s 368,369 = 0.204

$$K_3 = K_1 + AT_{106} + AT_{111.3} \quad (\text{CAM kit for launch})$$

TABLE II. Continued

| TEST : CA8(LRC VSTOL 129)               |  | DATA SET/RUN NUMBER COLLATION SUMMARY |         |          |            |                |            |               |              |              |  | DATE : 9/16/75 |  |  |           |  |  |  |           |     |
|---|--|---------------------------------------|---------|----------|------------|----------------|------------|---------------|--------------|--------------|--|----------------|--|--|-----------|--|--|--|-----------|-----|
| DATA SET IDENTIFIER                     | CONFIGURATION  | CARRIER                               |         |          |            | ORBITER        |            |               | MACH NUMBERS |              |  |                |  |  |           |  |  |  |           |     |
|   |  | $\alpha$                              | $\beta$ | $\delta$ | $\delta_e$ | $\delta_{ORB}$ | $\delta_G$ | $\delta_{BF}$ |              |              |  |                |  |  |           |  |  |  |           |     |
| RJF055                                  | K <sub>3</sub> V <sub>9.1.2</sub> F <sub>30</sub> H <sub>15.6.1</sub> G <sub>53.5</sub> O <sub>2</sub> T <sub>55</sub> T <sub>34</sub> | △                                     | 0       | 0        | 0          | 6              | -5         | -11.7         |              |              |  |                |  |  |           |  |  |  |           |     |
| 56                                      |  | △                                     | Y       | -        | -          | Y              | Y          | Y             |              |              |  |                |  |  |           |  |  |  |           |     |
| 57                                      |  | △                                     |         | -        | -          | 8              |            |               |              |              |  |                |  |  |           |  |  |  |           |     |
| 58                                      | H <sub>15.6.1</sub>  | △                                     |         | -4       | 0          | Y              |            |               |              |              |  |                |  |  |           |  |  |  |           |     |
| 59                                      |  |                                       |         |          | 0          |                |            |               |              |              |  |                |  |  |           |  |  |  |           |     |
| 60                                      |  |                                       |         |          | -2         |                |            |               |              |              |  |                |  |  |           |  |  |  |           |     |
| 61                                      |  |                                       |         |          | 17         |                |            |               |              |              |  |                |  |  |           |  |  |  |           |     |
| 62                                      |  |                                       |         |          | -23        | Y              |            | Y             |              |              |  |                |  |  |           |  |  |  |           |     |
| 63                                      |  |                                       |         |          | -23        | 6              |            | 0             |              |              |  |                |  |  |           |  |  |  |           |     |
| 64                                      |  |                                       |         |          | -10        | Y              |            | Y             |              |              |  |                |  |  |           |  |  |  |           |     |
| 65                                      |  |                                       |         |          | 10         |                |            |               |              |              |  |                |  |  |           |  |  |  |           |     |
| 66                                      |  |                                       |         |          | 17         |                |            |               |              |              |  |                |  |  |           |  |  |  |           |     |
| 67                                      |  | △                                     |         | Y        | 0          |                |            |               |              |              |  |                |  |  |           |  |  |  |           |     |
| 68                                      |  | △                                     |         | -4       |            |                |            |               |              |              |  |                |  |  |           |  |  |  |           |     |
| 69                                      |  |                                       |         | 0        |            |                |            |               |              |              |  |                |  |  |           |  |  |  |           |     |
| 70                                      |  |                                       |         |          | -2         |                |            |               |              |              |  |                |  |  |           |  |  |  |           |     |
| 71                                      | K <sub>3</sub> V <sub>9.1.2</sub> F <sub>30</sub> H <sub>15.6.1</sub> O <sub>2</sub> T <sub>55</sub> T <sub>34</sub>                   | △                                     |         | -2       | Y          |                |            |               |              |              |  |                |  |  |           |  |  |  |           |     |
| Y 72                                    |  | Y                                     | Y       | -        | -          | Y              | Y          | Y             |              |              |  |                |  |  |           |  |  |  |           |     |
| 1 7 13 19 25 31 37 43 49 55 61 67 75 76 |  |                                       |         |          |            |                |            |               |              |              |  |                |  |  |           |  |  |  |           |     |
| α OR β                                  |  |                                       |         |          |            |                |            |               |              | COEFFICIENTS |  |                |  |  | IDVAR (1) |  |  |  | IDVAR (2) | NDV |
| SCHEDULES                               |  |                                       |         |          |            |                |            |               |              |              |  |                |  |  |           |  |  |  |           |     |

\*Nominal Mach = 0.155 + 0.001 except d/s 366,367 Mach = 0.186, d/s 368,369 = 0.204

TABLE II. Continued

| TEST : CA8(LRC VSTOL 129)               |                                 | DATA SET/RUN NUMBER COLLATION SUMMARY |         |          |            |           |            |                   |              |  |  | DATE : 9/16/75 |  |  |  |
|---|---------------------------------|---------------------------------------|---------|----------|------------|-----------|------------|-------------------|--------------|--|--|----------------|--|--|--|
| DATA SET IDENTIFIER                     | CONFIGURATION                   | CARRIER                               |         |          |            | ORBITER   |            |                   | MACH NUMBERS |  |  |                |  |  |  |
|   |                                 | $\alpha$                              | $\beta$ | $\delta$ | $\delta e$ | $i_{ORB}$ | $\delta e$ | $\delta \delta F$ |              |  |  |                |  |  |  |
| RJF013                                  | K3V9.1.2 G5.3.5 F20 TS0 D2 TSA  | 2                                     | 0       | -        | -          | 8         | -5         | 0                 |              |  |  |                |  |  |  |
| 74                                      | +H15.6.1                        | 1                                     |         | -4       | 0          |           |            |                   |              |  |  |                |  |  |  |
| 75                                      |                                 | 2                                     |         | -2       |            |           |            |                   |              |  |  |                |  |  |  |
| 76                                      |                                 | 1                                     |         | 0        |            | Y         |            |                   |              |  |  |                |  |  |  |
| 77                                      | F20                             | 2                                     |         | -2       |            | 6         |            |                   |              |  |  |                |  |  |  |
| 78                                      | K3V9.1.2 F20 H15.6.1 TS0 D2 TSA | 1                                     |         | -4       |            |           |            |                   |              |  |  |                |  |  |  |
| 79                                      | K3V9.1.2 F20 H15.6.1 TS0 D2 TSA | 2                                     |         | -2       |            |           |            |                   |              |  |  |                |  |  |  |
| 80                                      |                                 | 1                                     |         | 0        |            |           |            |                   |              |  |  |                |  |  |  |
| 81                                      |                                 |                                       |         | 3        |            |           |            | Y                 |              |  |  |                |  |  |  |
| 82                                      | O1 TS4                          |                                       |         | -4       |            |           |            | -11.7             |              |  |  |                |  |  |  |
| 83                                      |                                 | 2                                     |         | -2       |            |           |            |                   |              |  |  |                |  |  |  |
| 84                                      |                                 | 1                                     |         | 0        | Y          |           |            |                   |              |  |  |                |  |  |  |
| 85                                      | K3V9.1.2 F20 TS0 O1 TS4         | 2                                     |         | -        | -          |           |            | Y                 |              |  |  |                |  |  |  |
| 86                                      | O2                              |                                       |         | -        | -          | Y         |            | 0                 |              |  |  |                |  |  |  |
| 87                                      | O1                              |                                       |         | -        | -          | 8         |            | -11.7             |              |  |  |                |  |  |  |
| 88                                      | +H15.6.1                        | 1                                     |         | 3        | 0          |           |            |                   |              |  |  |                |  |  |  |
| 89                                      |                                 |                                       |         | 0        |            |           |            |                   |              |  |  |                |  |  |  |
| 90                                      |                                 |                                       | Y       | -4       | Y          | Y         | Y          | Y                 |              |  |  |                |  |  |  |
| 1 7 13 19 25 31 37 43 49 55 61 67 75 76 |                                 |                                       |         |          |            |           |            |                   |              |  |  |                |  |  |  |
| COEFFICIENTS                            |                                 |                                       |         |          |            |           |            |                   |              |  |  |                |  |  |  |
| IDVAR (1) IDVAR (2) NDV                 |                                 |                                       |         |          |            |           |            |                   |              |  |  |                |  |  |  |
| SCHEDULES                               |                                 |                                       |         |          |            |           |            |                   |              |  |  |                |  |  |  |

\*Nominal Mach = 0.155  $\pm$  0.001 except a/s 366,367 Mach = 0.186. a/s 368,369 = 0.204

TABLE II. Continued

| TEST : CA8(LRC VSTOL 129)               |   | DATA SET/RUN NUMBER COLLATION SUMMARY |         |          |            |                |            |               |              |  |  | DATE : 9/16/75 |  |  |  |  |  |  |
|---|---|---------------------------------------|---------|----------|------------|----------------|------------|---------------|--------------|--|--|----------------|--|--|--|--|--|--|
| DATA SET IDENTIFIER                     | CONFIGURATION                                       | CARRIER                               |         |          |            | ORBITER        |            |               | MACH NUMBERS |  |  |                |  |  |  |  |  |  |
|   |   | $\alpha$                              | $\beta$ | $\delta$ | $\delta_e$ | $\delta_{ORB}$ | $\delta_e$ | $\delta_{BF}$ |              |  |  |                |  |  |  |  |  |  |
| RJF091                                  | $K_3 V_{9.1.2} F_{20} H_{15.6.1} T_{50} O_{12} S_4$ | $\Delta$                              | 0       | -2       | 0          | 8              | -5         | -11.7         |              |  |  |                |  |  |  |  |  |  |
| 092                                     | ↓   | $\Delta$                              |         | -2       | -23        | 8              | -5         |               |              |  |  |                |  |  |  |  |  |  |
| 093                                     | $K_{2.1}$   | $\Delta$                              |         | -2       | 0          | 3              | 0          |               |              |  |  |                |  |  |  |  |  |  |
| 094                                     | ↔   | $\Delta$                              |         | -2       |            |                |            |               |              |  |  |                |  |  |  |  |  |  |
| 095                                     | ↓   | $\Delta$                              |         | -4       |            |                |            |               |              |  |  |                |  |  |  |  |  |  |
| 096                                     | ↓   |                                       |         | -6       | ↓          |                |            |               |              |  |  |                |  |  |  |  |  |  |
| 097                                     | ↔   |                                       |         | OFF      | OFF        |                |            |               |              |  |  |                |  |  |  |  |  |  |
| 098                                     | ↓ $H_{15.6.1}$ ↓                                    |                                       |         | -4       | -23        |                |            |               |              |  |  |                |  |  |  |  |  |  |
| 099                                     | ↔   |                                       |         |          | 17         | Y              | Y          | Y             |              |  |  |                |  |  |  |  |  |  |
| 100                                     | $K_{3.1}$ ↔ $O_{2.1}$                               |                                       |         |          | 17         | 6              | -5         | 0             |              |  |  |                |  |  |  |  |  |  |
| 101                                     | ↔   |                                       |         | ↓        | -23        |                |            |               |              |  |  |                |  |  |  |  |  |  |
| 102                                     | ↔ $F_{10}$ ↔  |                                       |         | -2       |            |                |            |               |              |  |  |                |  |  |  |  |  |  |
| 103                                     | $K_{3.1}$   |                                       |         |          | ↓          |                |            |               |              |  |  |                |  |  |  |  |  |  |
| 104                                     | ↔   |                                       |         | ↓        | 17         |                |            |               |              |  |  |                |  |  |  |  |  |  |
| 105                                     | ↔   |                                       |         | OFF      | OFF        |                |            |               |              |  |  |                |  |  |  |  |  |  |
| 106                                     | ↔ $H_{15.6.1}$ ↔                                    |                                       |         | -2       | 0          |                |            |               |              |  |  |                |  |  |  |  |  |  |
| 107                                     | ↔   |                                       |         | 0        |            |                |            |               |              |  |  |                |  |  |  |  |  |  |
| Y 108                                   | ↓   | Y                                     | Y       | 2        | ↓          | Y              | Y          | Y             |              |  |  |                |  |  |  |  |  |  |
| 1 7 13 19 25 31 37 43 49 55 61 67 75 76 |   |                                       |         |          |            |                |            |               |              |  |  |                |  |  |  |  |  |  |
| COEFFICIENTS                            |   |                                       |         |          |            |                |            |               |              |  |  |                |  |  |  |  |  |  |
| IDVAR (1) IDVAR (2) NDV                 |   |                                       |         |          |            |                |            |               |              |  |  |                |  |  |  |  |  |  |
| α OR β SCHEDULES                        |   |                                       |         |          |            |                |            |               |              |  |  |                |  |  |  |  |  |  |

\*Nominal Mach =  $0.155 \pm 0.001$  except d/s 366,367 Mach = 0.186. d/s 368,369 = 0.204

$K_{3.1} = K_1 + AT_{106} + AT_{111.3}$  (Sting replacing vertical mounted from above)

TABLE II. Continued

| TEST : CA8(LRC VSTOL 129)  |   | DATA SET/RUN NUMBER COLLATION SUMMARY |         |          |            |               |            |               |              |  |  | DATE : 9/16/75 |  |  |  |
|--|---|---------------------------------------|---------|----------|------------|---------------|------------|---------------|--------------|--|--|----------------|--|--|--|
| DATA-SET IDENTIFIER  | CONFIGURATION   | CARRIER                               |         |          |            | ORBITER       |            |               | MACH NUMBERS |  |  |                |  |  |  |
|  |   | $\alpha$                              | $\beta$ | $\delta$ | $\delta_e$ | $\delta_{OR}$ | $\delta_e$ | $\delta_{SF}$ |              |  |  |                |  |  |  |
| R3F109   | K <sub>3</sub> V <sub>9.1,2</sub> F <sub>10</sub> H <sub>15.6,1</sub> TS <sub>0,2</sub> TS <sub>4</sub> <sup>95.3,5</sup> | $\Delta$                              | 0       | 0        | 0          | 6             | -5         | 0             |              |  |  |                |  |  |  |
| 110  | — OFF 1.55  |                                       |         |          |            | 6             | -5         |               |              |  |  |                |  |  |  |
| 111  | —   |                                       |         |          |            | 8°            |            |               |              |  |  |                |  |  |  |
| 112  | —   |                                       |         |          | -2         |               |            |               |              |  |  |                |  |  |  |
| 113  | —   |                                       |         |          | 2          | Y             |            |               |              |  |  |                |  |  |  |
| 114  | K <sub>3</sub> V <sub>9.1,2</sub> F <sub>10</sub> TS <sub>5,0</sub> TS <sub>4</sub>                                       |                                       |         |          | OFF        | OFF           | Y          | Y             | Y            |  |  |                |  |  |  |
| 115  | K <sub>2</sub> —F <sub>30</sub> —O <sub>1</sub> —   |                                       |         |          | ↓          | ↓             | 3          | 0             | -11.7        |  |  |                |  |  |  |
| 116  | K <sub>2</sub> V <sub>9.1,2</sub> H <sub>15.6,1</sub> F <sub>10</sub> TS <sub>5,0</sub> TS <sub>4</sub>                   |                                       |         |          | 3          | 0             |            |               |              |  |  |                |  |  |  |
| 117  | —   |                                       |         |          | 0          |               |            |               |              |  |  |                |  |  |  |
| 118  | —   |                                       |         |          | -4         |               |            |               |              |  |  |                |  |  |  |
| 119  | —   |                                       |         |          | -2         | Y             |            |               |              |  |  |                |  |  |  |
| 120  | —   |                                       |         |          | 1          | -23           |            |               |              |  |  |                |  |  |  |
| 121  | — TS <sub>6,1</sub> —   |                                       |         |          | ↓          | 17            |            |               |              |  |  |                |  |  |  |
| 122  | K <sub>2</sub> V <sub>9.1,2</sub> F <sub>0</sub> TS <sub>6,0</sub> TS <sub>4</sub>  |                                       |         |          | OFF        | OFF           |            |               |              |  |  |                |  |  |  |
| 123  | — H <sub>15.6,1</sub> TS <sub>6,0</sub> TS <sub>4</sub>   |                                       |         |          | -4         | 0             |            |               |              |  |  |                |  |  |  |
| 124  | —   |                                       |         |          | -2         |               |            |               |              |  |  |                |  |  |  |
| 125  | —   |                                       |         |          | 0          |               | Y          |               |              |  |  |                |  |  |  |
| Y 126  | K <sub>3</sub> —  | Y                                     | Y       |          | -4         | Y             | 6          | Y             | Y            |  |  |                |  |  |  |
| 1                      7                      13                      19                      25                      31                      37                      43                      49                      55                      61                      67                      73 |   |                                       |         |          |            |               |            |               |              |  |  |                |  |  |  |
| COEFFICIENTS   |   |                                       |         |          |            |               |            |               |              |  |  |                |  |  |  |
| IDVAR (1)      IDVAR (2)      N  |   |                                       |         |          |            |               |            |               |              |  |  |                |  |  |  |
| $\alpha$ OR $\beta$  |   |                                       |         |          |            |               |            |               |              |  |  |                |  |  |  |
| SCHEDULES  |   |                                       |         |          |            |               |            |               |              |  |  |                |  |  |  |

TEST RUN NUMBERS

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\*Nominal Mach = 0.155  $\pm$  0.001 except d/s 366,367 Mach = 0.186, d/s 368,369 = 0.204

TEST RUN NUMBERS

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TABLE II. Continued

| TEST : CA8(LRC VSTOL 129) |   | DATA SET/RUN NUMBER COLLATION SUMMARY                        |         |          |          |            |                |            |               |    |    | DATE : 0/16/75          |    |    |    |
|---------------------------|---|--|---------|----------|----------|------------|----------------|------------|---------------|----|----|-------------------------|----|----|----|
| DATA SET IDENTIFIER       | CONFIGURATION   | CARRIER  |         |          |          |            | ORBITER        |            |               |    |    | MACH NUMBERS            |    |    |    |
|                           |   | $\alpha$   | $\beta$ | GP       | $\delta$ | $\delta_e$ | $\delta_{ORB}$ | $\delta_o$ | $\delta_{BF}$ |    |    |                         |    |    |    |
| RJF127                    | K3V9.1.2 F <sub>0</sub> H15.6.1 TS <sub>6</sub> O.TS <sub>4</sub>   | $\Delta$   | O       |          | -2       | O          | 6              | O          | -11.7         |    |    |                         |    |    |    |
| 128                       | ↓   |  | T       |          | O        | O          | T              | T          | T             |    |    |                         |    |    |    |
| 129                       | ┌───┐ ┌───┐   |  |         |          | OFF      | OFF        |                |            | Y             |    |    |                         |    |    |    |
| 130                       | ┌───┐ ┌───┐ 10 <sub>2</sub>   |  |         |          | ↓        | ↓          |                |            | O             |    |    |                         |    |    |    |
| 131                       | ┌───┐ H15.6.1 ──┐   |  |         |          | -4       | O          |                |            | T             |    |    |                         |    |    |    |
| 132                       | ┌───┐   |  |         |          | O        | T          | Y              |            | Y             |    |    |                         |    |    |    |
| 133                       | K2.1 H15.6.1 F <sub>30</sub> G5.3.5 TS <sub>7</sub> DT <sub>5</sub> | 4  |         | $\Delta$ | -2       |            | 3              |            | -11.7         |    |    |                         |    |    |    |
| 134                       | ┌───┐   | 6  |         | T        | T        |            | T              |            | T             |    |    |                         |    |    |    |
| 135                       |   | 8  |         |          |          |            |                |            |               |    |    |                         |    |    |    |
| 136                       |   | O  |         |          |          |            |                |            |               |    |    |                         |    |    |    |
| 137                       |   | 2  |         |          |          |            |                |            |               |    |    |                         |    |    |    |
| 138                       |   | 10   |         |          |          |            |                |            |               |    |    |                         |    |    |    |
| 139                       |   | 12   |         |          |          |            |                |            |               |    |    |                         |    |    |    |
| 140                       |   | 14   |         |          |          |            |                |            |               |    |    |                         |    |    |    |
| 141                       |   | 16   |         |          | Y        |            |                |            |               |    |    |                         |    |    |    |
| 142                       |   | O  |         |          | -4       |            |                |            |               |    |    |                         |    |    |    |
| 143                       |   | 2  |         |          | T        |            |                |            |               |    |    |                         |    |    |    |
| Y 144                     | Y   | 4  | Y       | Y        | Y        | Y          | Y              | Y          | Y             |    |    |                         |    |    |    |
|                           |   | 1  | 7       | 13       | 19       | 25         | 31             | 37         | 43            | 49 | 55 | 61                      | 67 | 73 | 76 |
| $\alpha$ OR $\beta$       |   | COEFFICIENTS   |         |          |          |            |                |            |               |    |    | IDVAR (1) IDVAR (2) NDV |    |    |    |
| SCHEDULES                 |   | $\Delta$ GP = 2.5, 14, 30, $\pm$ 45.4 INCHES (GROUND Height) |         |          |          |            |                |            |               |    |    |                         |    |    |    |

\*Nominal Mach = 0.155  $\pm$  0.001 except d/s 366,367 Mach = 0.186, d/s 368,369 = 0.204

K<sub>2.1</sub> = K<sub>1</sub> + AT<sub>107</sub> + AT<sub>111.4</sub> (Sting replacing vertical mounted from above)

TABLE II. Continued

| TEST : CAB(LRC VSTOL 120) |  | DATA SET/RUN NUMBER COLLATION SUMMARY |         |          |          |            |                |            |               |    |    | DATE : 0/16/75 |           |       |  |
|---------------------------|--|---------------------------------------|---------|----------|----------|------------|----------------|------------|---------------|----|----|----------------|-----------|-------|--|
| DATA SET IDENTIFIER       | CONFIGUPATION  | CARRIER                               |         |          |          |            | ORBITER        |            |               |    |    | MACH NUMBERS   |           |       |  |
|                           |  | $\alpha$                              | $\beta$ | GP       | $\delta$ | $\delta e$ | $\delta_{ORB}$ | $\delta_c$ | $\delta_{BF}$ |    |    |                |           |       |  |
| RJF145                    | K <sub>2.1</sub> H <sub>15.4.1</sub> F <sub>30</sub> TS <sub>1</sub> O <sub>1</sub> TS <sub>4</sub> G <sub>5.3.5</sub> | 6                                     | 0       | $\Delta$ | -4       | 0          | 3              | 0          | -11.7         |    |    |                |           |       |  |
| 146                       |  | 8                                     | T       | T        | T        | T          | T              | T          | T             |    |    |                |           |       |  |
| 147                       |  | 10                                    |         |          |          |            |                |            |               |    |    |                |           |       |  |
| 148                       |  | 12                                    |         |          |          |            |                |            |               |    |    |                |           |       |  |
| 149                       |  | 14                                    |         |          |          |            |                |            |               |    |    |                |           |       |  |
| 150                       |  | 16                                    |         |          | Y        |            |                |            |               |    |    |                |           |       |  |
| 151                       |  | 0                                     |         |          | 6        |            |                |            |               |    |    |                |           |       |  |
| 152                       |  | 4                                     |         |          | T        |            |                |            |               |    |    |                |           |       |  |
| 153                       |  | 8                                     |         |          |          |            |                |            |               |    |    |                |           |       |  |
| 154                       |  | 6                                     |         |          |          |            |                |            |               |    |    |                |           |       |  |
| 155                       |  | 10                                    |         |          |          |            |                |            |               |    |    |                |           |       |  |
| 156                       |  | 12                                    |         |          | Y        | Y          |                |            |               |    |    |                |           |       |  |
| 157                       |  | 0                                     |         |          | OFF      | OFF        |                |            |               |    |    |                |           |       |  |
| 158                       |  | 4                                     |         |          | Y        | Y          |                |            |               |    |    |                |           |       |  |
| 159                       |  | 6                                     |         |          |          |            |                |            |               |    |    |                |           |       |  |
| 160                       |  | 8                                     |         |          |          |            |                |            |               |    |    |                |           |       |  |
| 161                       |  | 10                                    |         |          |          |            |                |            |               |    |    |                |           |       |  |
| 162                       |  | 12                                    | Y       | Y        | Y        | Y          | Y              | Y          | Y             |    |    |                |           |       |  |
|                           |  | 1                                     | 7       | 13       | 19       | 25         | 31             | 37         | 43            | 49 | 55 | 61             | 67        | 75 76 |  |
|                           |  | COEFFICIENTS                          |         |          |          |            |                |            |               |    |    | IDVAR (1)      | IDVAR (2) | NDV   |  |
|                           |  | SCHEDULES                             |         |          |          |            |                |            |               |    |    |                |           |       |  |

\*Nominal Mach = 0.155  $\pm$  0.001 except d/s 366,367 Mach = 0.186. d/s 368,369 = 0.204

TABLE II. Continued

| TEST : CA8(LRG VSTOL 129)                             |  |          | DATA SET/RUN NUMBER COLLATION SUMMARY |    |          |            |                |            |               |  |  |              | DATE : 9/16/75 |  |  |  |
|---|--|----------|---------------------------------------|----|----------|------------|----------------|------------|---------------|--|--|--------------|----------------|--|--|--|
| DATA SET IDENTIFIER                                   | CONFIGUPATION  | CARRIER  |                                       |    |          |            | ORBITER        |            |               |  |  | MACH NUMBERS |                |  |  |  |
|   |  | $\alpha$ | $\beta$                               | GP | $\delta$ | $\delta e$ | $\delta_{ORB}$ | $\delta e$ | $\delta_{BF}$ |  |  |              |                |  |  |  |
| RJE 163   | K <sub>2.1</sub> F <sub>3.0</sub> H <sub>15.6.1</sub> G <sub>5.3.5</sub> TS <sub>0</sub> TS <sub>1</sub> | 0        | 0                                     | 4  | -4       | -23        | 3              | 0          | -11.7         |  |  |              |                |  |  |  |
| 164   | ↓  | 4        | T                                     | T  | T        | T          | T              | T          | T             |  |  |              |                |  |  |  |
| 165   |  | 6        |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 166   |  | 8        |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 167   |  | 10       |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 168   |  | 12       |                                       |    |          | Y          |                | Y          | Y             |  |  |              |                |  |  |  |
| 169   | K <sub>2.1</sub>   | 0        |                                       |    | -2       |            | 6              | -5         |               |  |  |              |                |  |  |  |
| 170   | ↓  | 4        |                                       |    | T        |            | T              | T          |               |  |  |              |                |  |  |  |
| 171   |  | 6        |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 172   |  | 8        |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 173   |  | 10       |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 174   |  | 12       |                                       |    |          | Y          | Y              |            |               |  |  |              |                |  |  |  |
| 175   |  | 4        |                                       |    | 0        | 0          |                |            |               |  |  |              |                |  |  |  |
| 176   |  | 6        |                                       |    | T        | T          |                |            |               |  |  |              |                |  |  |  |
| 177   |  | 8        |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 178   |  | 10       |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 179   |  | 12       |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| Y 180   | Y  | 0        | Y                                     | Y  | Y        | Y          | Y              | Y          | Y             |  |  |              |                |  |  |  |
| 1 7 13 19 25 31 37 43 49 55 61 67 73 76               |  |          |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| α OR β SCHEDULES COEFFICIENTS IDVAR (1) IDVAR (2) NDV |  |          |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |

TEST RUN NUMBERS

 $\alpha$  OR  $\beta$ 

SCHEDULES

COEFFICIENTS

IDVAR (1)

IDVAR (2)

NDV

\*Nominal Mach = 0.155  $\pm$  0.001 except d/s 366,367 Mach = 0.186, d/s 368,369 = 0.204

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TABLE II. Continued

| TEST : CA8(LRC VSTOL 12°) |   | DATA SET/RUN NUMBER COLLATION SUMMARY |         |    |          |            |           |            |                 |    |    | DATE : 9/16/75 |    |           |     |
|---------------------------|---|---------------------------------------|---------|----|----------|------------|-----------|------------|-----------------|----|----|----------------|----|-----------|-----|
| DATA SET IDENTIFIER       | CONFIGURATION   | CARRIER                               |         |    |          |            | ORBITER   |            |                 |    |    | MACH NUMBERS   |    |           |     |
|                           |   | $\alpha$                              | $\beta$ | GP | $\delta$ | $\delta e$ | $i_{ORB}$ | $\delta e$ | $\delta \theta$ |    |    |                |    |           |     |
| RJF 181                   | K <sub>21</sub> F <sub>30</sub> H <sub>15</sub> L <sub>11</sub> G <sub>53</sub> A <sub>15</sub> TS <sub>0</sub> | 0                                     | 0       | 4  | -2       | 0          | 6         | -5         | -11.7           |    |    |                |    |           |     |
| 182                       |   | 4                                     | T       | T  | T        | T          | T         | T          | T               |    |    |                |    |           |     |
| 183                       |   | 6                                     |         |    |          |            |           |            |                 |    |    |                |    |           |     |
| 184                       |   | 8                                     |         |    |          |            |           |            |                 |    |    |                |    |           |     |
| 185                       |   | 10                                    |         |    |          |            |           |            |                 |    |    |                |    |           |     |
| 186                       |   | 12                                    |         |    |          | Y          |           |            |                 |    |    |                |    |           |     |
| 187                       |   | 0                                     |         |    | -4       |            |           |            |                 |    |    |                |    |           |     |
| 188                       |   | 4                                     |         |    |          |            |           |            |                 |    |    |                |    |           |     |
| 189                       |   | 6                                     |         |    |          |            |           |            |                 |    |    |                |    |           |     |
| 190                       |   | 8                                     |         |    |          |            |           |            |                 |    |    |                |    |           |     |
| 191                       |   | 10                                    |         |    |          |            |           |            |                 |    |    |                |    |           |     |
| 192                       |   | 12                                    |         |    | Y        | Y          |           |            |                 |    |    |                |    |           |     |
| 193                       |   | 0                                     |         |    | OFF      | OFF        |           |            |                 |    |    |                |    |           |     |
| 194                       |   | 4                                     |         |    | T        | T          |           |            |                 |    |    |                |    |           |     |
| 195                       |   | 6                                     |         |    |          |            |           |            |                 |    |    |                |    |           |     |
| 196                       |   | 8                                     |         |    |          |            |           |            |                 |    |    |                |    |           |     |
| 197                       |   | 10                                    |         |    |          |            |           |            |                 |    |    |                |    |           |     |
| Y 198                     | Y   | 12                                    | Y       | Y  | Y        | Y          | Y         | Y          | Y               |    |    |                |    |           |     |
|                           |   | 1                                     | 7       | 13 | 19       | 25         | 31        | 37         | 43              | 49 | 55 | 61             | 67 | 73 76     |     |
|                           |   | COEFFICIENTS                          |         |    |          |            |           |            |                 |    |    | IDVAR (1)      |    | IDVAR (2) | NOV |
|                           |   | SCHEDULES                             |         |    |          |            |           |            |                 |    |    |                |    |           |     |

\*Nominal Mach = 0.155  $\pm$  0.001 except d/s 366,367 Mach = 0.186, d/s 368,369 = 0.204

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TABLE II. Continued

| TEST: CA8(LRC VSTOL 129)                |                                  | DATA SET/RUN NUMBER COLLATION SUMMARY |         |    |          |            |                |            |               |  |  | DATE: 0/16/75 |  |           |     |  |
|---|----------------------------------|---------------------------------------|---------|----|----------|------------|----------------|------------|---------------|--|--|---------------|--|-----------|-----|--|
| DATA SET IDENTIFIER                     | CONFIGURATION                    | CARRIER                               |         |    |          |            | ORBITER        |            |               |  |  | MACH NUMBERS  |  |           |     |  |
|   |                                  | $\alpha$                              | $\beta$ | GP | $\delta$ | $\delta_e$ | $\delta_{ORB}$ | $\delta_e$ | $\delta_{BF}$ |  |  |               |  |           |     |  |
| RJE 199                                 | K3.1 F30 H15.6.1 G5.3.5 TS10 TS1 | 0                                     | 0       | 4  | -2       | 17         | 6              | -5         | -11.7         |  |  |               |  |           |     |  |
| 200                                     |                                  | 4                                     | T       | T  | T        | T          | T              | T          | T             |  |  |               |  |           |     |  |
| 201                                     |                                  | 6                                     |         |    |          |            |                |            |               |  |  |               |  |           |     |  |
| 202                                     |                                  | 8                                     |         |    |          |            |                |            |               |  |  |               |  |           |     |  |
| 203                                     |                                  | 10                                    |         |    |          |            |                |            |               |  |  |               |  |           |     |  |
| 204                                     |                                  | 12                                    |         |    |          | Y          |                | Y          |               |  |  |               |  |           |     |  |
| 205                                     |                                  | 0                                     |         |    |          | 0          |                | 0          |               |  |  |               |  |           |     |  |
| 206                                     |                                  | 4                                     |         |    |          | T          |                | T          |               |  |  |               |  |           |     |  |
| 207                                     |                                  | 6                                     |         |    |          |            |                |            |               |  |  |               |  |           |     |  |
| 208                                     |                                  | 8                                     |         |    |          |            |                |            |               |  |  |               |  |           |     |  |
| 209                                     |                                  | 10                                    |         |    |          |            |                |            |               |  |  |               |  |           |     |  |
| 210                                     | Y                                | 12                                    |         |    | Y        |            |                | Y          | Y             |  |  |               |  |           |     |  |
| 211                                     | ← 10.2 →                         | 0                                     |         |    | -4       |            |                | -5         | 0             |  |  |               |  |           |     |  |
| 212                                     |                                  | 4                                     |         |    | T        |            |                | T          | T             |  |  |               |  |           |     |  |
| 213                                     |                                  | 6                                     |         |    |          |            |                |            |               |  |  |               |  |           |     |  |
| 214                                     |                                  | 8                                     |         |    |          |            |                |            |               |  |  |               |  |           |     |  |
| 215                                     |                                  | 10                                    |         |    |          |            |                |            |               |  |  |               |  |           |     |  |
| Y 216                                   | Y                                | 12                                    | Y       | Y  | Y        | Y          | Y              | Y          | Y             |  |  |               |  |           |     |  |
| 1 7 13 19 25 31 37 43 49 55 61 67 73 76 |                                  |                                       |         |    |          |            |                |            |               |  |  |               |  |           |     |  |
| $\alpha$ OR $\beta$                     |                                  | COEFFICIENTS                          |         |    |          |            |                |            |               |  |  | IDVAR (1)     |  | IDVAR (2) | NDV |  |
| SCHEDULES                               |                                  |                                       |         |    |          |            |                |            |               |  |  |               |  |           |     |  |

\*Nominal Mach =  $0.155 \pm 0.001$  except  $d/s$  366,367 Mach = 0.186.  $d/s$  368,369 = 0.204

TABLE II. Continued

| TEST: CA8(LRC VSTOL 120)                |   | DATA SET/RUN NUMBER COLLATION SUMMARY |         |    |          |            |           |            |               |              |  | DATE: 9/16/75           |  |  |  |  |
|---|---|---------------------------------------|---------|----|----------|------------|-----------|------------|---------------|--------------|--|-------------------------|--|--|--|--|
| DATA SET IDENTIFIER                     | CONFIGURATION   | CARRIER                               |         |    |          |            | ORBITER   |            |               | MACH NUMBERS |  |                         |  |  |  |  |
|   |   | $\alpha$                              | $\beta$ | GP | $\delta$ | $\delta_e$ | $i_{ORB}$ | $\delta_e$ | $\delta_{BF}$ |              |  |                         |  |  |  |  |
| RJF217                                  | K <sub>3</sub> F <sub>30</sub> H <sub>15</sub> L <sub>1</sub> G <sub>53</sub> S <sub>7</sub> O <sub>2</sub> TS <sub>1</sub> | 0                                     | 0       | 4  | -2       | 0          | 6         | -5         | 0             |              |  |                         |  |  |  |  |
| 218                                     |   | 4                                     | T       | T  | T        | T          | T         | T          | T             |              |  |                         |  |  |  |  |
| 219                                     |   | 6                                     |         |    |          |            |           |            |               |              |  |                         |  |  |  |  |
| 220                                     |   | 8                                     |         |    |          |            |           |            |               |              |  |                         |  |  |  |  |
| 221                                     |   | 10                                    |         |    |          |            |           |            |               |              |  |                         |  |  |  |  |
| 222                                     |   | 12                                    |         |    | Y        |            |           |            |               |              |  |                         |  |  |  |  |
| 223                                     |   | 0                                     |         |    | 0        |            |           |            |               |              |  |                         |  |  |  |  |
| 224                                     |   | 4                                     |         |    | T        |            |           |            |               |              |  |                         |  |  |  |  |
| 225                                     |   | 6                                     |         |    |          |            |           |            |               |              |  |                         |  |  |  |  |
| 226                                     |   | 8                                     |         |    |          |            |           |            |               |              |  |                         |  |  |  |  |
| 227                                     |   | 10                                    |         |    |          |            |           |            |               |              |  |                         |  |  |  |  |
| 228                                     | Y   | 12                                    |         |    | Y        | Y          |           |            |               |              |  |                         |  |  |  |  |
| 229                                     | -----   | 0                                     |         |    | OFF      | OFF        |           |            |               |              |  |                         |  |  |  |  |
| 230                                     | -----   | 4                                     |         |    |          |            |           |            |               |              |  |                         |  |  |  |  |
| 231                                     |   | 6                                     |         |    |          |            |           |            |               |              |  |                         |  |  |  |  |
| 232                                     |   | 8                                     |         |    |          |            |           |            |               |              |  |                         |  |  |  |  |
| 233                                     |   | 10                                    |         |    |          |            |           |            |               |              |  |                         |  |  |  |  |
| 234                                     | Y   | 12                                    | Y       | Y  | Y        | Y          | Y         | Y          | Y             |              |  |                         |  |  |  |  |
| 1 7 13 19 25 31 37 43 49 55 61 67 75 76 |   |                                       |         |    |          |            |           |            |               |              |  |                         |  |  |  |  |
| $\alpha$ OR $\beta$                     |   | COEFFICIENTS                          |         |    |          |            |           |            |               |              |  | IDVAR (1) IDVAR (2) NDV |  |  |  |  |
| SCHEDULES                               |   |                                       |         |    |          |            |           |            |               |              |  |                         |  |  |  |  |

\*Nominal Mach =  $0.155 \pm 0.001$  except d/s 366,367 Mach = 0.186, d/s 368,369 = 0.204

TABLE II. Continued

| TEST: CA8(LRC VSTOL 129)                |                                  | DATA SET/RUN NUMBER COLLATION SUMMARY |         |    |          |            |                |            |               |  |  | DATE: 9/16/75 |  |  |  |  |
|---|----------------------------------|---------------------------------------|---------|----|----------|------------|----------------|------------|---------------|--|--|---------------|--|--|--|--|
| DATA SET IDENTIFIER                     | CONFIGURATION                    | CARRIER                               |         |    |          |            | ORBITER        |            |               |  |  | MACH NUMBERS  |  |  |  |  |
|   |                                  | $\alpha$                              | $\beta$ | GP | $\delta$ | $\delta_e$ | $\delta_{ORB}$ | $\delta_e$ | $\delta_{BF}$ |  |  |               |  |  |  |  |
| RJF 235                                 | K3.1 F30 H15.4.1 G5.3.5 TS0, TS4 | 0                                     | 0       | 4  | -2       | -23        | 6              | -5         | 0             |  |  |               |  |  |  |  |
| Y 236                                   |                                  | 4                                     | T       | T  | T        | T          | T              | T          | T             |  |  |               |  |  |  |  |
| 237                                     |                                  | 6                                     |         |    |          |            |                |            |               |  |  |               |  |  |  |  |
| 238                                     |                                  | 8                                     |         |    |          |            |                |            |               |  |  |               |  |  |  |  |
| 239                                     |                                  | 10                                    |         |    |          |            |                |            |               |  |  |               |  |  |  |  |
| 240                                     |                                  | 12                                    |         |    |          |            | Y              |            |               |  |  |               |  |  |  |  |
| 241                                     |                                  | 0                                     |         |    |          |            | 8              |            |               |  |  |               |  |  |  |  |
| 242                                     |                                  | 4                                     |         |    |          |            | T              |            |               |  |  |               |  |  |  |  |
| 243                                     |                                  | 6                                     |         |    |          |            |                |            |               |  |  |               |  |  |  |  |
| 244                                     |                                  | 8                                     |         |    |          |            |                |            |               |  |  |               |  |  |  |  |
| 245                                     |                                  | 10                                    |         |    |          |            |                |            |               |  |  |               |  |  |  |  |
| 246                                     | Y                                | 12                                    |         |    | Y        | Y          |                |            |               |  |  |               |  |  |  |  |
| 247                                     |                                  | 0                                     |         |    | OFF      | OFF        |                |            |               |  |  |               |  |  |  |  |
| 248                                     |                                  | 4                                     |         |    | T        | T          |                |            |               |  |  |               |  |  |  |  |
| 249                                     |                                  | 6                                     |         |    |          |            |                |            |               |  |  |               |  |  |  |  |
| 250                                     |                                  | 8                                     |         |    |          |            |                |            |               |  |  |               |  |  |  |  |
| 251                                     |                                  | 10                                    |         |    |          |            |                |            |               |  |  |               |  |  |  |  |
| Y 252                                   | Y                                | 12                                    | Y       | Y  | Y        | Y          | Y              | Y          | Y             |  |  |               |  |  |  |  |
| 1 7 13 19 25 31 37 43 49 55 61 67 75 76 |                                  |                                       |         |    |          |            |                |            |               |  |  |               |  |  |  |  |
| COEFFICIENTS                            |                                  |                                       |         |    |          |            |                |            |               |  |  |               |  |  |  |  |
| IDVAR (1) IDVAR (2) NDV                 |                                  |                                       |         |    |          |            |                |            |               |  |  |               |  |  |  |  |
| SCHEDULES                               |                                  |                                       |         |    |          |            |                |            |               |  |  |               |  |  |  |  |

\*Nominal Mach = 0.155  $\pm$  0.001 except d/s 366,367 Mach = 0.186. d/s 368,369 = 0.204

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TABLE II. Continued

| TEST: CA8(LRC VSTOL 129)                |                               | DATA SET/RUN NUMBER COLLATION SUMMARY               |              |              |              |              |                |              |               |  |  | DATE: 9/16/75 |  |           |           |     |
|---|-------------------------------|---|--------------|--------------|--------------|--------------|----------------|--------------|---------------|--|--|---------------|--|-----------|-----------|-----|
| DATA SET IDENTIFIER                     | CONFIGURATION                 | CARRIER   |              |              |              |              | ORBITER        |              |               |  |  | MACH NUMBERS  |  |           |           |     |
|   |                               | $\alpha$  | $\beta$      | GP           | $\delta$     | $\delta_e$   | $\delta_{orb}$ | $\delta_c$   | $\delta_{RF}$ |  |  |               |  |           |           |     |
| RJF253                                  | K3.1F30G5.3.5H15.411T570.2T54 | 0   | 0            | $\Delta$     | 0            | 0            | 8              | 5            | 0             |  |  |               |  |           |           |     |
| 254                                     |                               | 4   | T            | T            | T            | T            | T              | T            | T             |  |  |               |  |           |           |     |
| 255                                     |                               | 6   |              |              |              |              |                |              |               |  |  |               |  |           |           |     |
| 256                                     |                               | 8   |              |              |              |              |                |              |               |  |  |               |  |           |           |     |
| 257                                     |                               | 10  |              |              |              |              |                |              |               |  |  |               |  |           |           |     |
| 258                                     |                               | 12  |              |              | $\downarrow$ |              |                |              |               |  |  |               |  |           |           |     |
| 259                                     |                               | 0   |              |              | -4           |              |                |              |               |  |  |               |  |           |           |     |
| 260                                     |                               | 4   |              |              | T            |              |                |              |               |  |  |               |  |           |           |     |
| 261                                     |                               | 6   |              |              |              |              |                |              |               |  |  |               |  |           |           |     |
| 262                                     |                               | 8   |              |              |              |              |                |              |               |  |  |               |  |           |           |     |
| 263                                     |                               | 10  |              |              |              |              |                |              |               |  |  |               |  |           |           |     |
| 264                                     |                               | 12  |              |              |              |              |                |              |               |  |  |               |  |           |           |     |
| 265                                     |                               | 12  |              |              | $\downarrow$ |              |                |              |               |  |  |               |  |           |           |     |
| 266                                     |                               | 0   |              |              | -2           |              |                |              |               |  |  |               |  |           |           |     |
| 267                                     |                               | 4   |              |              | T            |              |                |              |               |  |  |               |  |           |           |     |
| 268                                     |                               | 6   |              |              |              |              |                |              |               |  |  |               |  |           |           |     |
| 269                                     |                               | 8   |              |              |              |              |                |              |               |  |  |               |  |           |           |     |
| 270                                     |                               | 10  | $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$   | $\downarrow$ | $\downarrow$  |  |  |               |  |           |           |     |
| 1 7 13 19 25 31 37 43 49 55 61 67 73 76 |                               |   |              |              |              |              |                |              |               |  |  |               |  |           |           |     |
| $\alpha$ OR $\beta$                     |                               | $\Delta$ GP = 2, 5, 14, 30, 45, 4, $\downarrow$ MAX |              |              |              |              | COEFFICIENTS   |              |               |  |  |               |  |           |           |     |
| SCHEDULES                               |                               | INCHES  |              |              |              |              |                |              |               |  |  |               |  | IDVAR (1) | IDVAR (2) | NDV |

\*Nominal Mach = 0.155  $\pm$  0.001 except d/s 366, 367 Mach = 0.186. d/s 368, 369 = 0.204

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TABLE II. Continued

| TEST : CA8(LRC VSTOL 12°) |                              | DATA SET/RUN NUMBER COLLATION SUMMARY                      |         |          |          |            |                |            |               |    |    | DATE : 9/16/75 |           |     |    |
|---------------------------|------------------------------|--|---------|----------|----------|------------|----------------|------------|---------------|----|----|----------------|-----------|-----|----|
| DATA SET IDENTIFIER       | CONFIGURATION                | CARRIER  |         |          |          |            | ORBITER        |            |               |    |    | MACH NUMBERS   |           |     |    |
|                           |                              | $\alpha$   | $\beta$ | GP       | $\delta$ | $\delta_e$ | $\delta_{orb}$ | $\delta_c$ | $\delta_{BF}$ |    |    |                |           |     |    |
| RJF271                    | K3.1E30G5.3.5H15.4.1TS7D&TS4 | 12   | 0       | $\Delta$ | -2       | 0          | 8              | -5         | 0             |    |    |                |           |     |    |
| 272                       |                              | $\Delta$   | T       | 54       | T        | T          | T              | T          | T             |    |    |                |           |     |    |
| 273                       |                              | 0  |         | $\Delta$ |          |            |                |            | -11.7         |    |    |                |           |     |    |
| 274                       |                              | 4  |         | T        |          |            |                |            | T             |    |    |                |           |     |    |
| 275                       |                              | 6  |         |          |          |            |                |            |               |    |    |                |           |     |    |
| 276                       |                              | 8  |         |          |          |            |                |            |               |    |    |                |           |     |    |
| 277                       |                              | 10   |         |          |          |            |                |            |               |    |    |                |           |     |    |
| 278                       |                              | 12   |         |          | Y        |            |                |            |               |    |    |                |           |     |    |
| 279                       |                              | 0  |         |          | -4       |            |                |            |               |    |    |                |           |     |    |
| 280                       |                              | 4  |         |          | T        |            |                |            |               |    |    |                |           |     |    |
| 281                       |                              | 6  |         |          |          |            |                |            |               |    |    |                |           |     |    |
| 282                       |                              | 8  |         |          |          |            |                |            |               |    |    |                |           |     |    |
| 283                       |                              | 10   |         |          |          |            |                |            |               |    |    |                |           |     |    |
| 284                       |                              | 12   |         |          | Y        |            |                |            |               |    |    |                |           |     |    |
| 285                       |                              | 0  |         |          | 0        |            |                |            |               |    |    |                |           |     |    |
| 286                       |                              | 4  |         |          | T        |            |                |            |               |    |    |                |           |     |    |
| 287                       |                              | 6  |         |          |          |            |                |            |               |    |    |                |           |     |    |
| 288                       |                              | 8  | Y       | Y        | Y        | Y          | Y              | Y          | Y             |    |    |                |           |     |    |
|                           |                              | 1  | 7       | 13       | 19       | 25         | 31             | 37         | 43            | 49 | 55 | 61             | 67        | 73  | 76 |
|                           |                              | COEFFICIENTS   |         |          |          |            |                |            |               |    |    | IDVAR (1)      | IDVAR (2) | NDV |    |
| $\alpha$ OR $\beta$       |                              | $\Delta \alpha = 4^\circ$ to $12^\circ$ $\Delta = 2^\circ$ |         |          |          |            |                |            |               |    |    |                |           |     |    |
| SCHEDULES                 |                              |  |         |          |          |            |                |            |               |    |    |                |           |     |    |

\*Nominal Mach = 0.155  $\pm$  0.001 except d/s 366,367 Mach = 0.186. d/s 368,369 = 0.204

ASA-M5

TABLE II. Continued

| TEST : CA8(LRC VSTOL 125) |                                   |              | DATA SET/RUN NUMBER COLLATION SUMMARY |              |              |              |              |              |               |    |    |              | DATE : 9/16/75 |           |     |  |  |
|---------------------------|-----------------------------------|--------------|---------------------------------------|--------------|--------------|--------------|--------------|--------------|---------------|----|----|--------------|----------------|-----------|-----|--|--|
| DATA SET IDENTIFIER       | CONFIGURATION                     | CARRIER      |                                       |              |              |              | ORBITER      |              |               |    |    | MACH NUMBERS |                |           |     |  |  |
|                           |                                   | $\alpha$     | $\beta$                               | GP           | $\delta$     | $\delta e$   | $i_{ORB}$    | $\delta c$   | $\delta_{BF}$ |    |    |              |                |           |     |  |  |
| RJF289                    | K3.1 F30 G52.5 H15.6 I5.7 O.1 TS4 | 10           | 0                                     | 5            | 0            | 0            | 8            | -5           | -11.7         |    |    |              |                |           |     |  |  |
| 290                       |                                   | 12           | T                                     | T            | $\downarrow$ | $\downarrow$ | T            | T            | T             |    |    |              |                |           |     |  |  |
| 291                       |                                   | 0            |                                       |              | OFF          | OFF          |              |              |               |    |    |              |                |           |     |  |  |
| 292                       |                                   | 4            |                                       |              | T            | T            |              |              |               |    |    |              |                |           |     |  |  |
| 293                       |                                   | 6            |                                       |              |              |              |              |              |               |    |    |              |                |           |     |  |  |
| 294                       |                                   | 8            |                                       |              |              |              |              |              |               |    |    |              |                |           |     |  |  |
| 295                       |                                   | 10           |                                       |              |              |              |              |              |               |    |    |              |                |           |     |  |  |
| 296                       | $\downarrow$                      | 12           |                                       |              | $\downarrow$ | $\downarrow$ |              |              |               |    |    |              |                |           |     |  |  |
| 297                       | H15.6 I                           | 0            |                                       |              | -2           | -23          |              |              |               |    |    |              |                |           |     |  |  |
| 298                       |                                   | 4            |                                       |              | T            | T            |              |              |               |    |    |              |                |           |     |  |  |
| 299                       |                                   | 6            |                                       |              |              |              |              |              |               |    |    |              |                |           |     |  |  |
| 300                       |                                   | 8            |                                       |              |              |              |              |              |               |    |    |              |                |           |     |  |  |
| 301                       |                                   | 10           |                                       |              |              |              |              |              |               |    |    |              |                |           |     |  |  |
| 302                       | $\downarrow$                      | 12           |                                       |              |              |              |              |              |               |    |    |              |                |           |     |  |  |
| 303                       | O <sub>2</sub>                    | 0            |                                       |              |              |              |              |              |               |    |    |              |                |           |     |  |  |
| 304                       |                                   | 4            |                                       |              |              |              |              |              |               |    |    |              |                |           |     |  |  |
| 305                       |                                   | 6            |                                       |              |              |              |              |              |               |    |    |              |                |           |     |  |  |
| 306                       | $\downarrow$                      | 8            | $\downarrow$                          | $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$  |    |    |              |                |           |     |  |  |
|                           |                                   | 1            | 7                                     | 13           | 19           | 25           | 31           | 37           | 43            | 49 | 55 | 61           | 67             | 73        | 76  |  |  |
|                           |                                   | COEFFICIENTS |                                       |              |              |              |              |              |               |    |    | IDVAR (1)    |                | IDVAR (2) | NOV |  |  |
|                           |                                   | SCHEDULES    |                                       |              |              |              |              |              |               |    |    |              |                |           |     |  |  |

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REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR\*Nominal Mach = 0.155  $\pm$  0.001 except d/s 366,367 Mach = 0.186. d/s 368,369 = 0.204

TABLE II. Continued


| TEST: CA8(LRC VSTOL 129) |  | DATA SET/RUN NUMBER COLLATION SUMMARY |         |    |          |            |              |            |             |    |    | DATE: 0/16/75 |    |           |     |  |
|--------------------------|--|---------------------------------------|---------|----|----------|------------|--------------|------------|-------------|----|----|---------------|----|-----------|-----|--|
| DATA SET IDENTIFIER      | CONFIGURATION  | CARRIER                               |         |    |          |            | ORBITER      |            |             |    |    | MACH NUMBERS  |    |           |     |  |
|                          |  | $\alpha$                              | $\beta$ | GP | $\delta$ | $\delta e$ | $\delta ORB$ | $\delta c$ | $\delta BF$ |    |    |               |    |           |     |  |
| RJF307                   | K <sub>21</sub> F <sub>10</sub> G <sub>53.5</sub> H <sub>10.6</sub> TS <sub>7D</sub> TS <sub>4</sub> | 10                                    | 0       | △5 | -2       | -23        | 8            | -5         | 0           |    |    |               |    |           |     |  |
| 308                      |  | 12                                    | T       | T  | T        | T          | T            | T          | T           |    |    |               |    |           |     |  |
| 309                      |  | 0                                     |         |    | OFF      | OFF        |              |            |             |    |    |               |    |           |     |  |
| 310                      |  | 4                                     |         |    | T        | T          |              |            |             |    |    |               |    |           |     |  |
| 311                      |  | 6                                     |         |    |          |            |              |            |             |    |    |               |    |           |     |  |
| 312                      |  | 8                                     |         |    |          |            |              |            |             |    |    |               |    |           |     |  |
| 313                      |  | 10                                    |         |    |          |            |              |            |             |    |    |               |    |           |     |  |
| 314                      | Y  | 12                                    |         |    | Y        | Y          |              |            |             |    |    |               |    |           |     |  |
| 315                      | H <sub>15.6.1</sub>  | 0                                     |         |    | -2       | 0          |              |            |             |    |    |               |    |           |     |  |
| 316                      |  | 4                                     |         |    | T        | T          |              |            |             |    |    |               |    |           |     |  |
| 317                      |  | 6                                     |         |    |          |            |              |            |             |    |    |               |    |           |     |  |
| 318                      |  | 8                                     |         |    |          |            |              |            |             |    |    |               |    |           |     |  |
| 319                      |  | 10                                    |         |    |          |            |              |            |             |    |    |               |    |           |     |  |
| 320                      |  | 12                                    |         |    | Y        | Y          |              |            |             |    |    |               |    |           |     |  |
| 321                      |  | 0                                     |         |    | 0        | 0          |              |            |             |    |    |               |    |           |     |  |
| 322                      |  | 4                                     |         |    | T        | T          |              |            |             |    |    |               |    |           |     |  |
| 323                      |  | 6                                     |         |    |          |            |              |            |             |    |    |               |    |           |     |  |
| 324                      | Y  | 8                                     | Y       | Y  | Y        | Y          | Y            | Y          | Y           |    |    |               |    |           |     |  |
|                          |  | 1                                     | 7       | 13 | 19       | 25         | 31           | 37         | 43          | 49 | 55 | 61            | 67 | 73 76     |     |  |
|                          |  | COEFFICIENTS                          |         |    |          |            |              |            |             |    |    | IDVAR (1)     |    | IDVAR (2) | NDV |  |
| $\alpha$ OR $\beta$      |  |                                       |         |    |          |            |              |            |             |    |    |               |    |           |     |  |
| SCHEDULES                |  |                                       |         |    |          |            |              |            |             |    |    |               |    |           |     |  |

\*Nominal Mach = 0.155 ± 0.001 except d/s 366,367 Mach = 0.186. d/s 368,369 = 0.204

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TABLE II. Continued

| TEST : CA8(LRC VSTOL 129)               |   | DATA SET/RUN NUMBER COLLATION SUMMARY |         |    |          |            |           |            |               |  |  | DATE : 9/16/75 |  |           |  |     |
|---|---|---------------------------------------|---------|----|----------|------------|-----------|------------|---------------|--|--|----------------|--|-----------|--|-----|
| DATA SET IDENTIFIER                     | CONFIGURATION   | CARRIER                               |         |    |          |            | ORBITER   |            |               |  |  | MACH NUMBERS   |  |           |  |     |
|   |   | $\alpha$                              | $\beta$ | GP | $\delta$ | $\delta_e$ | $i_{orb}$ | $\delta_e$ | $\delta_{8F}$ |  |  |                |  |           |  |     |
| RJF 325                                 | K3.1 F10 H15.6.1 G5.35 TS.02  | 10                                    | 0       | 5  | 0        | 0          | 8         | -5         | 0             |  |  |                |  |           |  |     |
| 326                                     |  | 12                                    | T       | T  | T        | T          | T         | T          | T             |  |  |                |  |           |  |     |
| 327                                     |   | 0                                     |         |    | 2        |            |           |            |               |  |  |                |  |           |  |     |
| 328                                     |   | 4                                     |         |    | T        |            |           |            |               |  |  |                |  |           |  |     |
| 329                                     |   | 6                                     |         |    |          |            |           |            |               |  |  |                |  |           |  |     |
| 330                                     |   | 8                                     |         |    |          |            |           |            |               |  |  |                |  |           |  |     |
| 331                                     |   | 10                                    |         |    |          |            |           |            |               |  |  |                |  |           |  |     |
| 332                                     |   | 12                                    |         |    | Y        |            | Y         |            |               |  |  |                |  |           |  |     |
| 333                                     |   | 0                                     |         |    | -2       |            | 6         |            |               |  |  |                |  |           |  |     |
| 334                                     |   | 4                                     |         |    | T        |            | T         |            |               |  |  |                |  |           |  |     |
| 335                                     |   | 6                                     |         |    |          |            |           |            |               |  |  |                |  |           |  |     |
| 336                                     |   | 8                                     |         |    |          |            |           |            |               |  |  |                |  |           |  |     |
| 337                                     |   | 10                                    |         |    |          |            |           |            |               |  |  |                |  |           |  |     |
| 338                                     |   | 12                                    |         |    | Y        |            |           |            |               |  |  |                |  |           |  |     |
| 339                                     |   | 0                                     |         |    | 0        |            |           |            |               |  |  |                |  |           |  |     |
| 340                                     |   | 4                                     |         |    | T        |            |           |            |               |  |  |                |  |           |  |     |
| 341                                     |   | 6                                     |         |    |          |            |           |            |               |  |  |                |  |           |  |     |
| Y 342                                   | Y   | 8                                     | Y       | Y  | Y        | Y          | Y         | Y          | Y             |  |  |                |  |           |  |     |
| 1 7 13 19 25 31 37 43 49 55 61 67 75 76 |   |                                       |         |    |          |            |           |            |               |  |  |                |  |           |  |     |
| $\alpha$ OR $\beta$                     |   | COEFFICIENTS                          |         |    |          |            |           |            |               |  |  | IDVAR (1)      |  | IDVAR (2) |  | NDV |
| SCHEDULES                               |   |                                       |         |    |          |            |           |            |               |  |  |                |  |           |  |     |

\*Nominal Mach = 0.155  $\pm$  0.001 except d/s 366,367 Mach = 0.186. d/s 368,369 = 0.204

TABLE II. Continued

| TEST: CA8(LRC VSTOL 120) |  | DATA SET/RUN NUMBER COLLATION SUMMARY |         |    |          |            |                |            |               |    |    | DATE: 9/16/75 |           |     |    |
|--------------------------|--|---------------------------------------|---------|----|----------|------------|----------------|------------|---------------|----|----|---------------|-----------|-----|----|
| DATA SET IDENTIFIER      | CONFIGURATION  | CARRIER                               |         |    |          |            | ORBITER        |            |               |    |    | MACH NUMBERS  |           |     |    |
|                          |  | $\alpha$                              | $\beta$ | GP | $\delta$ | $\delta_e$ | $\delta_{ORB}$ | $\delta_c$ | $\delta_{BF}$ |    |    |               |           |     |    |
| RJF343                   | K <sub>31</sub> F <sub>0</sub> H <sub>15.6.1</sub> G <sub>5.3.5</sub> T <sub>3</sub> D <sub>2</sub> T <sub>3</sub> | 10                                    | 0       | 3  | 0        | 0          | 6              | -5         | 0             |    |    |               |           |     |    |
| 344                      |  | 12                                    | T       | T  | ↓        | T          | T              | T          | T             |    |    |               |           |     |    |
| 345                      |  | 0                                     |         |    | 2        |            |                |            |               |    |    |               |           |     |    |
| 346                      |  | 4                                     |         |    | T        |            |                |            |               |    |    |               |           |     |    |
| 347                      |  | 6                                     |         |    |          |            |                |            |               |    |    |               |           |     |    |
| 348                      |  | 8                                     |         |    |          |            |                |            |               |    |    |               |           |     |    |
| 349                      |  | 10                                    |         |    |          |            |                |            |               |    |    |               |           |     |    |
| 350                      | Y  | 12                                    |         |    | Y        | Y          |                |            |               |    |    |               |           |     |    |
| 351                      |  | 0                                     |         |    | OFF      | OFF        |                |            |               |    |    |               |           |     |    |
| 352                      |  | 4                                     |         |    | T        | T          |                |            |               |    |    |               |           |     |    |
| 353                      |  | 6                                     |         |    |          |            |                |            |               |    |    |               |           |     |    |
| 354                      |  | 8                                     |         |    |          |            |                |            |               |    |    |               |           |     |    |
| 355                      |  | 10                                    |         |    |          |            |                |            |               |    |    |               |           |     |    |
| 356                      | Y  | 12                                    |         |    | Y        | Y          |                |            |               |    |    |               |           |     |    |
| 357                      | H <sub>15.6.1</sub>  | 0                                     |         |    | -2       | -23        |                |            |               |    |    |               |           |     |    |
| 358                      |  | 4                                     |         |    | T        | T          |                |            |               |    |    |               |           |     |    |
| 359                      |  | 6                                     |         |    |          |            |                |            |               |    |    |               |           |     |    |
| 360                      | Y  | 8                                     | Y       | Y  | Y        | Y          | Y              | Y          | Y             |    |    |               |           |     |    |
|                          |  | 1                                     | 7       | 13 | 19       | 25         | 31             | 37         | 43            | 49 | 55 | 61            | 67        | 73  | 76 |
|                          |  | COEFFICIENTS                          |         |    |          |            |                |            |               |    |    | IDVAR (1)     | IDVAR (2) | NDV |    |
|                          |  | SCHEDULES                             |         |    |          |            |                |            |               |    |    |               |           |     |    |

\*Nominal Mach = 0.155 ± 0.001 except a/s 366,367 Mach = 0.186, a/s 368,369 = 0.204

TABLE II. Continued

| TEST : CA8(LRC VSTOL 129)               |  | DATA SET/RUN NUMBER COLLATION SUMMARY   |         |                |          |            |                |            |               |   |         | DATE : 0/16/75 |   |  |  |  |
|---|--|---|---------|----------------|----------|------------|----------------|------------|---------------|---|---------|----------------|---|--|--|--|
| DATA SET IDENTIFIER                     | CONFIGURATION  | CARRIER   |         |                |          |            | ORBITER        |            |               |   |         | MACH NUMBERS   |   |  |  |  |
|   |  | $\alpha$  | $\beta$ | GP             | $\delta$ | $\delta_e$ | $\delta_{ORB}$ | $\delta_e$ | $\delta_{BF}$ |   |         |                |   |  |  |  |
| RJF 361                                 | K <sub>3.1</sub> F <sub>10</sub> H <sub>15.6.1</sub> G <sub>5.3.5</sub> TS <sub>7</sub> D <sub>2</sub> TS <sub>4</sub> | 10  | 0       | 5              | -2       | -23        | 6              | -5         | 0             |   |         |                |   |  |  |  |
| 362                                     |  | 12  | T       | T              | T        | T          | ↓              | ↓          | ↓             |   |         |                |   |  |  |  |
| 363                                     | K <sub>2.11</sub> → 10 <sub>1</sub> →  | 0   |         | ↓              |          | ↓          | 3              | 0          | -11.7         | ← | NO DATA |                | → |  |  |  |
| 364                                     |  | 7   |         | 44             |          | 0          | T              | T          | T             |   |         |                |   |  |  |  |
| 365                                     |  | 8   |         | 54             |          | T          |                |            |               |   |         |                |   |  |  |  |
| 366                                     |  | 7   |         | 44             |          |            |                |            |               |   |         |                |   |  |  |  |
| 367                                     |  | 8   |         | 54             |          |            |                |            |               |   |         |                |   |  |  |  |
| 368                                     |  | 7   |         | 44             |          |            |                |            |               |   |         |                |   |  |  |  |
| 369                                     |  | 8   |         | 54             |          |            |                |            |               |   |         |                |   |  |  |  |
| 370                                     |  | 9   |         | C <sub>t</sub> |          |            |                |            |               | ← | NO DATA |                | → |  |  |  |
| 371                                     | ↓  | 9   |         | T              |          |            |                |            |               | ← | NO DATA |                | → |  |  |  |
| 372                                     | K <sub>2.1</sub> F <sub>30</sub> →   | 9   |         | ↓              |          |            | ↓              | ↓          |               | ← | NO DATA |                | → |  |  |  |
| 373                                     | K <sub>3.1</sub> F <sub>20</sub> →   | 10  |         | 11             |          |            | 6              | -5         | ↓             | ← | NO DATA |                | → |  |  |  |
| 374                                     | K <sub>3.1</sub> F <sub>10</sub> → 10 <sub>2</sub> →   | 0   |         | 12             |          |            | T              | T          | 0             |   |         |                |   |  |  |  |
| 375                                     |  | 4   |         | T              |          |            |                |            | T             |   |         |                |   |  |  |  |
| 376                                     |  | 6   |         |                |          |            |                |            |               |   |         |                |   |  |  |  |
| 377                                     |  | 8   |         |                |          |            |                |            |               |   |         |                |   |  |  |  |
| 378                                     | ↓  | 10  | ↓       | ↓              | ↓        | ↓          | ↓              | ↓          | ↓             |   |         |                |   |  |  |  |
| 1 7 13 19 25 31 37 43 49 55 61 67 75 76 |  |   |         |                |          |            |                |            |               |   |         |                |   |  |  |  |
| α OR β SCHEDULES                        |  | COEFFICIENTS  |         |                |          |            |                |            |               |   |         |                |   |  |  |  |
| 7 α = 2, 3, 4, 6, 8                     |  | 8 α = 4, 6, 8, 10, 12   |         |                |          |            |                |            |               |   |         |                |   |  |  |  |
| 9 α = 16° to 24° Δ = 2°                 |  | 10 α = 0 to 18° Δ = 2°  |         |                |          |            |                |            |               |   |         |                |   |  |  |  |
|   |  | 11 1/2 GP = 0/24.25", 2/35", 4/45.25", 10 VAR (116° to 180° AR (2) INDV. 45.4, 18/45" |         |                |          |            |                |            |               |   |         |                |   |  |  |  |
|   |  | 12 GP = 2, 5, 10, 14, 18, 30, 45.4, ‡ MAX   |         |                |          |            |                |            |               |   |         |                |   |  |  |  |

\*Nominal Mach = 0.155 ± 0.001 except d/s 366, 367 Mach = 0.186. d/s 368, 369 = 0.204

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TABLE II. Continued

| TEST: CA8(LRC VSTOL 129)  |                                  | DATA SET/RUN NUMBER COLLATION SUMMARY |         |             |          |            |                |            |               |  |  | DATE: 9/16/75 |  |  |  |
|---|----------------------------------|---------------------------------------|---------|-------------|----------|------------|----------------|------------|---------------|--|--|---------------|--|--|--|
| DATA SET IDENTIFIER   | CONFIGURATION                    | CARRIER                               |         |             |          |            | ORBITER        |            |               |  |  | MACH NUMBERS  |  |  |  |
|   |                                  | $\alpha$                              | $\beta$ | GP          | $\delta$ | $\delta_e$ | $\delta_{orb}$ | $\delta_c$ | $\delta_{ef}$ |  |  |               |  |  |  |
| RJF379  | K3.1F10 H15.6.1 G53.5 TS10.2 TS1 | 12                                    | 0       | $\Delta$ 12 | -2       | 0          | 6              | -5         | 0             |  |  |               |  |  |  |
| 380   |                                  | 0                                     | T       | T           | 2        | T          | T              | T          | T             |  |  |               |  |  |  |
| 381   |                                  | 4                                     |         |             | T        |            |                |            |               |  |  |               |  |  |  |
| 382   |                                  | 6                                     |         |             |          |            |                |            |               |  |  |               |  |  |  |
| 383   |                                  | 8                                     |         |             |          |            |                |            |               |  |  |               |  |  |  |
| 384   |                                  | 10                                    |         |             |          |            |                |            |               |  |  |               |  |  |  |
| 385   |                                  | 12                                    |         | Y           | Y        | Y          | Y              | Y          |               |  |  |               |  |  |  |
| 386   | Keil 10.1                        | 0                                     |         | $\Delta$ 5  | 0        | 3          | 0              | -11.7      |               |  |  |               |  |  |  |
| 387   |                                  | 4                                     |         | T           | T        | T          | T              | T          |               |  |  |               |  |  |  |
| 388   |                                  | 6                                     |         |             |          |            |                |            |               |  |  |               |  |  |  |
| 389   |                                  | 8                                     |         |             |          |            |                |            |               |  |  |               |  |  |  |
| 390   |                                  | 10                                    |         |             |          |            |                |            |               |  |  |               |  |  |  |
| 391   |                                  | 12                                    |         |             |          |            |                |            |               |  |  |               |  |  |  |
| 392   |                                  | 0                                     |         |             | -2       |            |                |            |               |  |  |               |  |  |  |
| 393   |                                  | 4                                     |         |             |          |            |                |            |               |  |  |               |  |  |  |
| 394   |                                  | 6                                     |         |             |          |            |                |            |               |  |  |               |  |  |  |
| 395   |                                  | 8                                     |         |             |          |            |                |            |               |  |  |               |  |  |  |
| 396   |                                  | 10                                    | Y       | Y           | Y        | Y          | Y              | Y          | Y             |  |  |               |  |  |  |
| <div>1 7 13 19 25 31 37 43 49 55 61 67 73 76</div> <div>COEFFICIENTS</div> <div>12VAR (1) 12VAR (2) NDV</div> <div><math>\alpha</math> OR <math>\beta</math></div> <div>SCHEDULES</div> |                                  |                                       |         |             |          |            |                |            |               |  |  |               |  |  |  |

\*Nominal Mach = 0.155  $\pm$  0.001 except d/s 366,367 Mach = 0.186, d/s 368,369 = 0.204

TABLE II. Continued

| TEST: CA8(LRC VSTOL 120) |   | DATA SET/RUN NUMBER COLLATION SUMMARY |         |    |          |            |                |            |               |    |    | DATE: 0/16/75 |           |     |  |
|--------------------------|---|---------------------------------------|---------|----|----------|------------|----------------|------------|---------------|----|----|---------------|-----------|-----|--|
| DATA SET IDENTIFIER      | CONFIGURATION   | CARRIER                               |         |    |          |            | ORBITER        |            |               |    |    | MACH NUMBERS  |           |     |  |
|                          |   | $\alpha$                              | $\beta$ | GP | $\delta$ | $\delta_e$ | $\delta_{ORB}$ | $\delta_e$ | $\delta_{BF}$ |    |    |               |           |     |  |
| RJF397                   | K <sub>2</sub> F <sub>10</sub> H <sub>15.6</sub> G <sub>5.35</sub> TS <sub>7</sub> ATS <sub>4</sub> | 12                                    | 0       | 5  | -2       | 0          | 3              | 0          | -11.7         |    |    |               |           |     |  |
| 398                      |   | 0                                     | T       | T  | -4       | T          | T              | T          | T             |    |    |               |           |     |  |
| 399                      |   | 4                                     |         |    |          |            |                |            |               |    |    |               |           |     |  |
| 400                      |   | 6                                     |         |    | Y        |            |                |            |               |    |    |               |           |     |  |
| 401                      |   | 8                                     |         |    | 0        |            |                |            |               |    |    |               |           |     |  |
| 402                      |   | 10                                    |         |    |          |            |                |            |               |    |    |               |           |     |  |
| 403                      | Y   | 12                                    |         |    | Y        | Y          |                |            |               |    |    |               |           |     |  |
| 404                      | —   | 0                                     |         |    | OFF      | OFF        |                |            |               |    |    |               |           |     |  |
| 405                      | —   | 4                                     |         |    | T        | T          |                |            |               |    |    |               |           |     |  |
| 406                      |   | 6                                     |         |    |          |            |                |            |               |    |    |               |           |     |  |
| 407                      |   | 8                                     |         |    |          |            |                |            |               |    |    |               |           |     |  |
| 408                      |   | 10                                    |         |    |          |            |                |            |               |    |    |               |           |     |  |
| 409                      | Y   | 12                                    |         |    | Y        | Y          |                |            |               |    |    |               |           |     |  |
| 410                      | — H <sub>15.6</sub> —   | 0                                     |         |    | -2       | -23        |                |            |               |    |    |               |           |     |  |
| 411                      | —   | 4                                     |         |    | T        | T          |                |            |               |    |    |               |           |     |  |
| 412                      |   | 6                                     |         |    |          |            |                |            |               |    |    |               |           |     |  |
| 413                      |   | 8                                     |         |    |          |            |                |            |               |    |    |               |           |     |  |
| 414                      | Y   | 10                                    | Y       | Y  | Y        | Y          | Y              | Y          | Y             |    |    |               |           |     |  |
|                          |   | 7                                     | 13      | 19 | 25       | 31         | 37             | 43         | 49            | 55 | 61 | 67            | 75        | 76  |  |
|                          |   | COEFFICIENTS                          |         |    |          |            |                |            |               |    |    | IDVAR (1)     | IDVAR (2) | NDV |  |
|                          |   | SCHEDULES                             |         |    |          |            |                |            |               |    |    |               |           |     |  |

\*Nominal Mach = 0.155  $\pm$  0.001 except d/s 366,367 Mach = 0.186, d/s 368,369 = 0.204

TABLE II. Continued

| TEST: CA8(LRC VSTOL 129)                |  | DATA SET/RUN NUMBER COLLATION SUMMARY |         |    |          |            |                 |            |               |  |  | DATE: 0/16/75 |  |  |  |
|---|--|---------------------------------------|---------|----|----------|------------|-----------------|------------|---------------|--|--|---------------|--|--|--|
| DATA SET IDENTIFIER                     | CONFIGURATION  | CARRIER                               |         |    |          |            | ORBITER         |            |               |  |  | MACH NUMBERS  |  |  |  |
|   |  | $\alpha$                              | $\beta$ | GP | $\delta$ | $\delta_e$ | $\delta_{ORBI}$ | $\delta_e$ | $\delta_{BF}$ |  |  |               |  |  |  |
| RJF415                                  | K <sub>2.1</sub> F <sub>10</sub> H <sub>15.6.1</sub> G <sub>5.3.5</sub> T <sub>5.7</sub> O <sub>1</sub> T <sub>5.4</sub> | 12                                    | 0       | 5  | -2       | -23        | 3               | 0          | -11.7         |  |  |               |  |  |  |
| Y 416                                   |  | 0                                     | T       | T  | T        | T          | T               | T          | T             |  |  |               |  |  |  |
| 417                                     |  | 4                                     |         |    |          |            |                 |            |               |  |  |               |  |  |  |
| 418                                     |  | 6                                     |         |    |          |            |                 |            |               |  |  |               |  |  |  |
| 419                                     |  | 8                                     |         |    |          |            |                 |            |               |  |  |               |  |  |  |
| 420                                     |  | 10                                    |         |    |          |            |                 |            |               |  |  |               |  |  |  |
| 421                                     | Y  | 12                                    |         |    | Y        | Y          |                 |            |               |  |  |               |  |  |  |
| 422                                     |  | 0                                     |         |    | OFF      | OFF        |                 |            |               |  |  |               |  |  |  |
| 423                                     |  | 4                                     |         |    | T        | T          |                 |            |               |  |  |               |  |  |  |
| 424                                     |  | 6                                     |         |    |          |            |                 |            |               |  |  |               |  |  |  |
| 425                                     |  | 8                                     |         |    |          |            |                 |            |               |  |  |               |  |  |  |
| 426                                     |  | 10                                    |         |    |          |            |                 |            |               |  |  |               |  |  |  |
| 427                                     | Y  | 12                                    |         |    | Y        | Y          |                 |            |               |  |  |               |  |  |  |
| 428                                     |  | 0                                     |         |    | -6       | 0          |                 |            |               |  |  |               |  |  |  |
| 429                                     |  | 4                                     |         |    | T        | T          |                 |            |               |  |  |               |  |  |  |
| 430                                     |  | 6                                     |         |    |          |            |                 |            |               |  |  |               |  |  |  |
| 431                                     |  | 8                                     |         |    |          |            |                 |            |               |  |  |               |  |  |  |
| Y 432                                   | Y  | 10                                    | Y       | Y  | Y        | Y          | Y               | Y          | Y             |  |  |               |  |  |  |
| 1 7 13 19 25 31 37 43 49 55 61 67 75 76 |  |                                       |         |    |          |            |                 |            |               |  |  |               |  |  |  |
| α OR β                                  |  |                                       |         |    |          |            |                 |            |               |  |  |               |  |  |  |
| SCHEDULES                               |  |                                       |         |    |          |            |                 |            |               |  |  |               |  |  |  |
| COEFFICIENTS                            |  |                                       |         |    |          |            |                 |            |               |  |  |               |  |  |  |
| IDVAR (1) IDVAR (2) NDV                 |  |                                       |         |    |          |            |                 |            |               |  |  |               |  |  |  |

\*Nominal Mach = 0.155 ± 0.001 except d/s 366,367 Mach = 0.186, d/s 368,369 = 0.204

TABLE II. Continued

| TEST : CA8(LRC VSTOL 129)               |                              |          | DATA SET/RUN NUMBER COLLATION SUMMARY |    |          |            |           |            |               |              |  |  | DATE : 9/16/75 |  |  |  |
|---|------------------------------|----------|---------------------------------------|----|----------|------------|-----------|------------|---------------|--------------|--|--|----------------|--|--|--|
| DATA SET IDENTIFIER                     | CONFIGURATION                | CARRIER  |                                       |    |          |            | ORBITER   |            |               | MACH NUMBERS |  |  |                |  |  |  |
|   |                              | $\alpha$ | $\beta$                               | GP | $\delta$ | $\delta_e$ | $i_{ORB}$ | $\delta_c$ | $\delta_{BF}$ |              |  |  |                |  |  |  |
| RSF433                                  | K2.1 F20 H15 L1 G5.3.5TS7ATS | 12       | 0                                     | 5  | -6       | 0          | 3         | 0          | -11.7         |              |  |  |                |  |  |  |
| 434                                     | Y                            | 0        | T                                     | T  | -4       | T          | T         | T          | T             |              |  |  |                |  |  |  |
| 435                                     |                              | 4        |                                       |    | T        |            |           |            |               |              |  |  |                |  |  |  |
| 436                                     |                              | 6        |                                       |    |          |            |           |            |               |              |  |  |                |  |  |  |
| 437                                     |                              | 8        |                                       |    |          |            |           |            |               |              |  |  |                |  |  |  |
| 438                                     |                              | 10       |                                       |    |          |            |           |            |               |              |  |  |                |  |  |  |
| 439                                     |                              | 12       |                                       |    |          | Y          |           |            |               |              |  |  |                |  |  |  |
| 440                                     |                              | 0        |                                       |    |          | -2         |           |            |               |              |  |  |                |  |  |  |
| 441                                     |                              | 4        |                                       |    |          | T          |           |            |               |              |  |  |                |  |  |  |
| 442                                     |                              | 6        |                                       |    |          |            |           |            |               |              |  |  |                |  |  |  |
| 443                                     |                              | 8        |                                       |    |          |            |           |            |               |              |  |  |                |  |  |  |
| 444                                     | 10                           |          |                                       |    |          |            |           |            |               |              |  |  |                |  |  |  |
| 445                                     | 12                           |          |                                       |    |          |            |           |            |               |              |  |  |                |  |  |  |
| 446                                     | Y F30                        | 0        |                                       |    |          |            |           |            |               |              |  |  |                |  |  |  |
| 447                                     | Y                            | 4        |                                       |    |          |            |           |            |               |              |  |  |                |  |  |  |
| 448                                     |                              | 6        |                                       |    |          |            |           |            |               |              |  |  |                |  |  |  |
| 449                                     |                              | 8        |                                       |    |          |            |           |            |               |              |  |  |                |  |  |  |
| 450                                     | Y                            | 10       | Y                                     | Y  | Y        | Y          | Y         | Y          | Y             |              |  |  |                |  |  |  |
| 1 7 13 19 25 31 37 43 49 55 61 67 73 76 |                              |          |                                       |    |          |            |           |            |               |              |  |  |                |  |  |  |
| COEFFICIENTS                            |                              |          |                                       |    |          |            |           |            |               |              |  |  |                |  |  |  |
| IDVAR (1) IDVAR (2) NDV                 |                              |          |                                       |    |          |            |           |            |               |              |  |  |                |  |  |  |
| SCHEDULES                               |                              |          |                                       |    |          |            |           |            |               |              |  |  |                |  |  |  |

\*Nominal Mach =  $0.155 \pm 0.001$  except d/s 366,367 Mach = 0.186, d/s 368,369 = 0.204

1351.152

TABLE II. Continued

| TEST : CAB(LRC VSTOL 129)               |                                   |          | DATA SET/RUN NUMBER COLLATION SUMMARY |    |          |            |                |            |               |  |  |              | DATE : 9/16/75 |  |  |  |
|---|-----------------------------------|----------|---------------------------------------|----|----------|------------|----------------|------------|---------------|--|--|--------------|----------------|--|--|--|
| DATA SET IDENTIFIER                     | CONFIGURATION                     | CARRIER  |                                       |    |          |            | ORBITER        |            |               |  |  | MACH NUMBERS |                |  |  |  |
|   |                                   | $\alpha$ | $\beta$                               | GP | $\delta$ | $\delta_e$ | $\delta_{ORB}$ | $\delta_e$ | $\delta_{BF}$ |  |  |              |                |  |  |  |
| RJF 451                                 | K2.1 F30 H15.6.1 G9.3.8 B70.1 TS4 | 12       | 0                                     | 5  | -2       | 0          | 3              | 0          | -11.7         |  |  |              |                |  |  |  |
| 452                                     | K3.1 F20                          | 0        | T                                     | T  | T        | T          | 6              | T          | T             |  |  |              |                |  |  |  |
| 453                                     |                                   | 4        |                                       |    |          |            | T              |            |               |  |  |              |                |  |  |  |
| 454                                     |                                   | 6        |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 455                                     |                                   | 8        |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 456                                     |                                   | 10       |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 457                                     |                                   | 12       |                                       |    |          |            |                | Y          |               |  |  |              |                |  |  |  |
| 458                                     |                                   | 0        |                                       |    |          |            |                | -5         |               |  |  |              |                |  |  |  |
| 459                                     |                                   | 4        |                                       |    |          |            |                | T          |               |  |  |              |                |  |  |  |
| 460                                     |                                   | 6        |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 461                                     |                                   | 8        |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 462                                     |                                   | 10       |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 463                                     |                                   | 12       |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 464                                     |                                   | 0        |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 465                                     |                                   | 4        |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 466                                     |                                   | 6        |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 467                                     |                                   | 8        |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| 468                                     |                                   | 10       | Y                                     | Y  | Y        | Y          | Y              | Y          | Y             |  |  |              |                |  |  |  |
| 1 7 13 19 25 31 37 43 49 55 61 67 75 76 |                                   |          |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| COEFFICIENTS                            |                                   |          |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| IDVAR (1) IDVAR (2) NDV                 |                                   |          |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |
| SCHEDULES                               |                                   |          |                                       |    |          |            |                |            |               |  |  |              |                |  |  |  |

\*Nominal Mach =  $0.155 \pm 0.001$  except d/s 366,367 Mach = 0.186. d/s 368,369 = 0.204



TABLE II. Continued

| TEST : CA8(LRC VSTOL 129) |                            | DATA SET/RUN NUMBER COLLATION SUMMARY |         |    |          |            |                |            |               |              |    | DATE : 0/16/75          |    |    |    |  |
|---------------------------|----------------------------|---------------------------------------|---------|----|----------|------------|----------------|------------|---------------|--------------|----|-------------------------|----|----|----|--|
| DATA SET IDENTIFIER       | CONFIGURATION              | CARRIER                               |         |    |          |            | ORBITER        |            |               | MACH NUMBERS |    |                         |    |    |    |  |
|                           |                            | $\alpha$                              | $\beta$ | GP | $\delta$ | $\delta_e$ | $\delta_{orb}$ | $\delta_o$ | $\delta_{ef}$ |              |    |                         |    |    |    |  |
| RJF 469                   | K21 F20 H1561 G535T37 Q154 | 12                                    | 0       | 5  | -2       | 0          | 6              | -5         | -11.7         |              |    |                         |    |    |    |  |
| 470                       |                            | 0                                     | T       | T  | -4       | T          | T              | T          | T             |              |    |                         |    |    |    |  |
| 471                       |                            | 4                                     |         |    | T        |            |                |            |               |              |    |                         |    |    |    |  |
| 472                       |                            | 6                                     |         |    |          |            |                |            |               |              |    |                         |    |    |    |  |
| 473                       |                            | 8                                     |         |    |          |            |                |            |               |              |    |                         |    |    |    |  |
| 474                       |                            | 10                                    |         |    |          |            |                |            |               |              |    |                         |    |    |    |  |
| 475                       |                            | 12                                    |         |    | Y        |            |                |            |               |              |    |                         |    |    |    |  |
| 476                       |                            | 0                                     |         |    | 0        |            |                |            |               |              |    |                         |    |    |    |  |
| 477                       |                            | 4                                     |         |    | T        |            |                |            |               |              |    |                         |    |    |    |  |
| 478                       |                            | 6                                     |         |    |          |            |                |            |               |              |    |                         |    |    |    |  |
| 479                       |                            | 8                                     |         |    |          |            |                |            |               |              |    |                         |    |    |    |  |
| 480                       |                            | 10                                    |         |    |          |            |                |            |               |              |    |                         |    |    |    |  |
| 481                       | Y                          | 12                                    |         |    | Y        |            |                |            |               |              |    |                         |    |    |    |  |
| 482                       | Y                          | 0                                     |         |    | OFF      | OFF        |                |            |               |              |    |                         |    |    |    |  |
| 483                       |                            | 4                                     |         |    | T        | T          |                |            |               |              |    |                         |    |    |    |  |
| 484                       |                            | 6                                     |         |    |          |            |                |            |               |              |    |                         |    |    |    |  |
| 485                       |                            | 8                                     |         |    |          |            |                |            |               |              |    |                         |    |    |    |  |
| Y 486                     | Y                          | 10                                    | Y       | Y  | Y        | Y          | Y              | Y          | Y             |              |    |                         |    |    |    |  |
|                           |                            | 1                                     | 7       | 13 | 19       | 25         | 31             | 37         | 43            | 49           | 55 | 61                      | 67 | 75 | 76 |  |
|                           |                            | COEFFICIENTS                          |         |    |          |            |                |            |               |              |    | IDVAR (1) IDVAR (2) NDV |    |    |    |  |
| $\alpha$ OR $\beta$       |                            |                                       |         |    |          |            |                |            |               |              |    |                         |    |    |    |  |
| SCHEDULES                 |                            |                                       |         |    |          |            |                |            |               |              |    |                         |    |    |    |  |

\*Nominal Mach =  $0.155 \pm 0.001$  except  $d/s$  366,367 Mach = 0.186.  $d/s$  368,369 = 0.204

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TABLE II. Continued

| TEST: CA8(LRC VSTOL 120) |   |          | DATA SET/RUN NUMBER COLLATION SUMMARY |             |          |            |              |            |             |  |  |              | DATE: 9/16/75 |  |  |  |
|--------------------------|---|----------|---------------------------------------|-------------|----------|------------|--------------|------------|-------------|--|--|--------------|---------------|--|--|--|
| DATA SET IDENTIFIER      | CONFIGURATION   | CARRIER  |                                       |             |          |            | ORBITER      |            |             |  |  | MACH NUMBERS |               |  |  |  |
|                          |   | $\alpha$ | $\beta$                               | GP          | $\delta$ | $\delta e$ | $\delta ORB$ | $\delta c$ | $\delta BF$ |  |  |              |               |  |  |  |
| RJF 487                  | K <sub>2</sub> F <sub>20</sub> G <sub>5</sub> S <sub>5</sub> TS <sub>7</sub> D <sub>1</sub> TS <sub>4</sub> | 12       | 0                                     | $\Delta 5$  | OFF      | OFF        | 6            | -5         | -11.7       |  |  |              |               |  |  |  |
| 488                      | 1115.6  | 0        |                                       | T           | -2       | 17         | T            | T          | T           |  |  |              |               |  |  |  |
| 489                      |   | 4        |                                       |             | T        | T          |              |            |             |  |  |              |               |  |  |  |
| 490                      |   | 6        |                                       |             |          |            |              |            |             |  |  |              |               |  |  |  |
| 491                      |   | 8        |                                       |             |          |            |              |            |             |  |  |              |               |  |  |  |
| 492                      |   | 10       |                                       |             |          |            |              |            |             |  |  |              |               |  |  |  |
| 493                      |   | 12       |                                       |             |          | Y          |              |            |             |  |  |              |               |  |  |  |
| 494                      |   | 0        |                                       |             |          | 23         |              |            |             |  |  |              |               |  |  |  |
| 495                      |   | 4        |                                       |             |          | T          |              |            |             |  |  |              |               |  |  |  |
| 496                      |   | 6        |                                       |             |          |            |              |            |             |  |  |              |               |  |  |  |
| 497                      |   | 8        |                                       | Y           |          |            |              |            |             |  |  |              |               |  |  |  |
| 498                      |   | 10       |                                       | $\Delta 5+$ |          |            |              |            |             |  |  |              |               |  |  |  |
| 499                      |   | 12       |                                       | $\Delta 5$  |          |            | Y            |            |             |  |  |              |               |  |  |  |
| 500                      |   | 0        |                                       | 11.0        |          |            | 8            |            |             |  |  |              |               |  |  |  |
| 501                      |   | 4        |                                       | $\Delta 13$ |          |            | T            |            |             |  |  |              |               |  |  |  |
| 502                      |   | 6        |                                       | $\Delta 14$ |          |            |              |            |             |  |  |              |               |  |  |  |
| 503                      |   | 8        |                                       | $\Delta 13$ |          |            |              |            |             |  |  |              |               |  |  |  |
| Y 504                    | Y   | 10       | Y                                     | $\Delta 14$ | Y        | Y          | Y            | Y          | Y           |  |  |              |               |  |  |  |

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25

31

37

43

49

55

61

67

73

76

$\alpha$  OR  $\beta$

SCHEDULES

$\Delta 5+$

$\Delta 5$  + REPEAT @ 2.5, 14 INCHES

$\Delta 13$

GP = 2.5, 14 & 45.4 INCHES

$\Delta 14$

GP = 2 & 45.4 INCHES

IDVAR (1)

IDVAR (2)

NDV

TEST RUN NUMBERS

 $\alpha$  OR  $\beta$   
SCHEDULES

$\Delta 5 = \Delta 5 + \text{REPEAT @ } 2.5, 14 \text{ INCHES}$  COEFFICIENTS  
 $\Delta 13 \text{ GP} = 2.5, 14 \text{ } \pm 45.4 \text{ INCHES}$

$\Delta 14 \text{ GP} = 2 \text{ } \pm 45.4 \text{ INCHES}$  IDVAR (1) IDVAR (2) NDV

\*Nominal Mach = 0.155  $\pm$  0.001 except d/s 366,367 Mach = 0.186, d/s 368,369 = 0.204

NASA MSFC-44

TABLE II. Continued

| TEST : CAB(LRC VSTOL 12°) |  | DATA SET/RUN NUMBER COLLATION SUMMARY |         |      |          |            |           |            |               |    |    | DATE : 9/16/75 |    |    |           |  |           |     |
|---------------------------|--|---------------------------------------|---------|------|----------|------------|-----------|------------|---------------|----|----|----------------|----|----|-----------|--|-----------|-----|
| DATA SET IDENTIFIER       | CONFIGURATION  | CARRIER                               |         |      |          |            | ORBITER   |            |               |    |    | MACH NUMBERS   |    |    |           |  |           |     |
|                           |  | $\alpha$                              | $\beta$ | GP   | $\delta$ | $\delta_e$ | $i_{ORB}$ | $\delta_e$ | $\delta_{BF}$ |    |    |                |    |    |           |  |           |     |
| RJF505                    | K <sub>1.2</sub> F <sub>30</sub> H <sub>15.4</sub> G <sub>5.3.5</sub> TS <sub>7</sub> O <sub>1</sub> TS <sub>4</sub> | 12                                    | 0       | △15  | -2       | -23        | 8         | -5         | -11.7         |    |    |                |    |    |           |  |           |     |
| 506                       |  | 0                                     | T       | 11.0 | OFF      | OFF        | T         | T          | T             |    |    |                |    |    |           |  |           |     |
| 507                       |  | 4                                     |         | △13  | T        | T          |           |            |               |    |    |                |    |    |           |  |           |     |
| 508                       |  | 6                                     |         | △14  |          |            |           |            |               |    |    |                |    |    |           |  |           |     |
| 509                       | Y  | 8                                     |         | △13  | Y        | Y          | Y         | Y          | Y             |    |    |                |    |    |           |  |           |     |
| 510                       | K <sub>1.2</sub> F <sub>30</sub> H <sub>15.4</sub> G <sub>5.3.5</sub> TS <sub>2</sub>                                | △10                                   |         | 65.0 | -6       | 0          | -         | -          | -             |    |    |                |    |    |           |  |           |     |
| 511                       |  | T                                     |         | T    | -4       | 0          |           |            |               |    |    |                |    |    |           |  |           |     |
| 512                       | Y  |                                       |         |      | -2       | 0          |           |            |               |    |    |                |    |    |           |  |           |     |
| 513                       | K <sub>1.2</sub> F <sub>30</sub> G <sub>5.3.5</sub> TS <sub>2</sub>  |                                       |         |      | OFF      | OFF        |           |            |               |    |    |                |    |    |           |  |           |     |
| 514                       | K <sub>1.2</sub> TS <sub>1</sub>   |                                       |         | Y    | T        | T          |           |            |               |    |    |                |    |    |           |  |           |     |
| 515                       |  |                                       |         | 87.0 |          |            |           |            |               |    |    |                |    |    |           |  |           |     |
| 516                       |  |                                       |         | 45.0 | Y        | Y          |           |            |               |    |    |                |    |    |           |  |           |     |
| 517                       | H <sub>15.1</sub>  |                                       |         | 45.0 | -2       | 0          |           |            |               |    |    |                |    |    |           |  |           |     |
| 518                       |  |                                       |         | 87.0 | T        | T          |           |            |               |    |    |                |    |    |           |  |           |     |
| 519                       |  |                                       |         | 65.0 | Y        |            |           |            |               |    |    |                |    |    |           |  |           |     |
| 520                       | Y Y  |                                       |         | T    | 0        |            |           |            |               |    |    |                |    |    |           |  |           |     |
| 521                       | K <sub>1.2</sub> H <sub>15.1</sub> TS <sub>1</sub>   |                                       |         |      | -4       |            |           |            |               |    |    |                |    |    |           |  |           |     |
| Y 522                     | K <sub>1.2</sub> H <sub>15.1</sub> TS <sub>1</sub> INVERTED  | Y                                     | Y       | Y    | Y        | Y          |           |            |               |    |    |                |    |    |           |  |           |     |
|                           |  | 1                                     | 7       | 13   | 19       | 25         | 31        | 37         | 43            | 49 | 55 | 61             | 67 | 75 | 76        |  |           |     |
|                           |  |                                       |         |      |          |            |           |            |               |    |    |                |    |    | IDVAR (1) |  | IDVAR (2) | NOV |
| COEFFICIENTS              |  |                                       |         |      |          |            |           |            |               |    |    |                |    |    |           |  |           |     |
| $\alpha$ OR $\beta$       |  |                                       |         |      |          |            |           |            |               |    |    |                |    |    |           |  |           |     |
| SCHEDULES                 |  |                                       |         |      |          |            |           |            |               |    |    |                |    |    |           |  |           |     |

\*Nominal Mach = 0.155 ± 0.001 except d/s 366,367 Mach = 0.186. d/s 368,369 = 0.204

K<sub>1.2</sub> = B29BW45M25M26N57N58T14 (Sting mounted midbody from above)

TABLE II, Concluded

TABLE II, Concluded

TEST : CA8(LRC VSTOL 129)

DATA SET/RUN-NUMBER COLLATION SUMMARY

DATE : 0/16/75

| DATA SET IDENTIFIER | CONFIGURATION                             | CARRIER  |         |    |          |            | ORBITER        |            |               |  |  | MACH NUMBERS |  |  |  |  |
|---------------------|---|----------|---------|----|----------|------------|----------------|------------|---------------|--|--|--------------|--|--|--|--|
|                     |   | $\alpha$ | $\beta$ | GP | $\delta$ | $\delta_e$ | $\delta_{ORB}$ | $\delta_c$ | $\delta_{BF}$ |  |  |              |  |  |  |  |
| RJF523              | K1.2 H15.1 TS <sub>1</sub> INVERTED       | 0        | 0       | 65 | -2       | 0          | -              | -          | -             |  |  |              |  |  |  |  |
| 524                 | ↓   | T        | T       | 87 | -2       | 0          |                |            |               |  |  |              |  |  |  |  |
| 525                 | ↓   |          |         | 65 | 0        | 0          |                |            |               |  |  |              |  |  |  |  |
| 526                 | K1.2 TS <sub>1</sub> INVERTED             |          |         | 45 | OFF      | OFF        |                |            |               |  |  |              |  |  |  |  |
| 527                 | ↓   |          |         | 65 | T        | T          |                |            |               |  |  |              |  |  |  |  |
| 528                 | ↓   |          |         | 87 |          |            |                |            |               |  |  |              |  |  |  |  |
| 529                 | K1.2 F30 TS <sub>2</sub> INVERTED         |          |         | 65 |          |            |                |            |               |  |  |              |  |  |  |  |
| 530                 | ↓   |          |         | 87 | Y        | Y          |                |            |               |  |  |              |  |  |  |  |
| 531                 | K1.2 H15.1 F30 TS <sub>2</sub> INVERTED   |          |         | 65 | -2       | 0          |                |            |               |  |  |              |  |  |  |  |
| 532                 | ↓   |          |         | 87 | -2       | T          |                |            |               |  |  |              |  |  |  |  |
| 533                 | ↓   |          |         | 65 | -4       |            |                |            |               |  |  |              |  |  |  |  |
| 534                 | ↓   |          |         | 87 | -4       |            |                |            |               |  |  |              |  |  |  |  |
| 535                 | K1.2 H15.6.1 F30 TS <sub>4</sub> INVERTED |          |         | T  | -2       |            |                |            |               |  |  |              |  |  |  |  |
| 536                 | ↓   | Y        | Y       | Y  | -4       | Y          |                |            |               |  |  |              |  |  |  |  |

TEST RUN NUMBERS

COEFFICIENTS

IDVAR (1)

IDVAR (2)

NDV

$\alpha$  OR  $\beta$

SCHEDULES

Nominal Mach = 0.155 + 0.003

\*Nominal Mach = 0.155  $\pm$  0.001 except d/s 366,367 Mach = 0.186, d/s 368,369 = 0.204

1862-1863

TABLE III. MODEL DIMENSIONAL DATA  
a. Carrier

MODEL COMPONENT: AILERON - A<sub>1</sub>

GENERAL DESCRIPTION: Inboard aileron extending from WBL 17.80 to 20.58.

747 MODEL SCALE: 0.040

MODEL 1065

DRAWING NO.: 65-71450

| DIMENSIONS: (For 1 of 2 ailerons) | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|-----------------------------------|-------------------|--------------------|
| Area - Ft <sup>2</sup>            |                   |                    |
| Planform                          | <u>35.9</u>       | <u>0.057</u>       |
| Span (equivalent)                 | <u>5.79 FT</u>    | <u>2.78 IN</u>     |
| Chords:                           |                   |                    |
| Inboard                           | <u>5.48 FT</u>    | <u>2.632 IN</u>    |
| Outboard                          | <u>7.34 FT</u>    | <u>3.522 IN</u>    |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENTS: AILERON - A<sub>2</sub>

GENERAL DESCRIPTION: Outboard aileron extending from WBL 33.96 to WBL 44.58

747 MODEL SCALE: 0.040 MODEL: 1065

DRAWING NO.: 65-71450

| DIMENSIONS: (For 1 of 2 ailerons) | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|-----------------------------------|-------------------|--------------------|
|                                   | <u>Feet</u>       | <u>Inches</u>      |
| Area - Ft <sup>2</sup>            |                   |                    |
| Planform                          | <u>76.7</u>       | <u>0.123</u>       |
| Span (equivalent)                 | <u>22.12</u>      | <u>10.62</u>       |
| Chords:                           |                   |                    |
| Inboard                           | <u>4.0</u>        | <u>1.920</u>       |
| Outboard                          | <u>2.9</u>        | <u>1.392</u>       |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: ATTACH STRUCTURE - AT<sub>106</sub>

GENERAL DESCRIPTION: Launch Configuration. A welded rod assembly to support forward part of Orbiter. Struts have a streamlined "gaiter" fairing with 18.2 in. chord. The strut terminals on the 747 have streamlined fairing.

MODEL SCALE: 0.04

DRAWING NO.: 747-MD-685. S O. 1284-192, -193 -196, -199, -200 -203, -208 -211

| DIMENSIONS:                          | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|--------------------------------------|-------------------|--------------------|
| Attach Points on 747 $i_o = 6^\circ$ |                   |                    |
| No. of struts                        | <u>4</u>          | <u>4</u>           |
| Diameter in. Main (2)                | <u>8.5</u>        | <u>.340</u>        |
| Diameter in. Sway Braces (2)         | <u>3.13</u>       | <u>.125</u>        |
| Location in.                         |                   |                    |
| BS 747                               | <u>680</u>        | <u>27.2</u>        |
| BWL 747                              | <u>372</u>        | <u>14.88</u>       |
| BBL 747                              | <u>66.3</u>       | <u>2.65</u>        |
| Attach point on Orbiter              |                   |                    |
| BS 747                               | <u>684.87</u>     | <u>27.40</u>       |
| BWL 747                              | <u>512.61</u>     | <u>20.50</u>       |
| BBL                                  | <u>0</u>          | <u>0</u>           |
| BS Orbiter                           | <u>388.15</u>     | <u>15.526</u>      |
| WL Orbiter                           | <u>283.11</u>     | <u>11.32</u>       |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: ATTACH STRUCTURE - AT<sub>107</sub>

GENERAL DESCRIPTION: Ferry Configuration. A welded rod assembly to support forward part of Orbiter - struts have a streamlined fairing with 18.33 inch chord. The strut terminals on the 747 and Orbiter have streamlined fairings.

MODEL SCALE: 0.040

DRAWING NO.: 747-MD-685 S.O. 1284-192, -193, -194, -198, -200, -203, -208  
-211

| DIMENSIONS:                              | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|--|-------------------|--------------------|
| Attach point on 747: ( $i_0 = 3^\circ$ ) |                   |                    |
| Number of struts                         | <u>2</u>          | <u>2</u>           |
| Diameter, in. (Main 2)                   | <u>5.0</u>        | <u>.200</u>        |
| Location, In.                            |                   |                    |
| BS 747                                   | <u>680</u>        | <u>27.2</u>        |
| BWL 747                                  | <u>372</u>        | <u>14.88</u>       |
| BBL 747                                  | <u>66.3</u>       | <u>2.65</u>        |
| Attach point on Orbiter                  |                   |                    |
| BS 747                                   | <u>680.24</u>     | <u>27.21</u>       |
| BWL 747                                  | <u>464.20</u>     | <u>18.57</u>       |
| BBL 747                                  | <u>0</u>          | <u>0</u>           |
| BS Orbiter                               | <u>388.15</u>     | <u>15.53</u>       |
| WL Orbiter                               | <u>283.11</u>     | <u>11.32</u>       |



TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: ATTACH STRUCTURE - AT<sub>111.3</sub>

GENERAL DESCRIPTION: Launch Configuration. A welded rod assembly and fairing to support the aft part of Orbiter on the 747. Main struts and sway braces have streamlined fairings with following chords: Main - 78 in., R.H. Sway Brace 34.73 in., L.H. Sway Brace 18.05 in. Terminals on the 747 have streamlined fairings.

MODEL SCALE: 0.04

DRAWING NO.: 747-MD-686, S.O. 1284-201, -202, -206

| DIMENSIONS:                | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|----------------------------|-------------------|--------------------|
| Attach points on 747       |                   |                    |
| Number of Struts           | <u>6</u>          | <u>6</u>           |
| Diameter In. Fwd. Legs (2) | <u>12</u>         | <u>.48</u>         |
| Aft Legs (2)               | <u>12</u>         | <u>.48</u>         |
| R.H. Sway Brace            | <u>6.25</u>       | <u>.25</u>         |
| L.H. Sway Brace            | <u>3.25</u>       | <u>.13</u>         |
| Location In.               |                   |                    |
| BS 747                     | <u>1445.3</u>     | <u>57.81</u>       |
| Fwd. BWL 747               | <u>322.98</u>     | <u>12.92</u>       |
| BBL 747                    | <u>96.5</u>       | <u>3.86</u>        |
| BS 747                     | <u>1607</u>       | <u>64.28</u>       |
| BWL 747                    | <u>329.0</u>      | <u>13.16</u>       |
| BBL 747                    | <u>96.5</u>       | <u>3.86</u>        |
| Attach point on Orbiter    |                   |                    |
| BS 747                     | <u>1607</u>       | <u>64.28</u>       |
| BWL 747                    | <u>400</u>        | <u>16.00</u>       |
| BBL 747                    | <u>96.5</u>       | <u>3.86</u>        |
| BS Orbiter                 | <u>1317</u>       | <u>52.68</u>       |
| WL Orbiter                 | <u>267.50</u>     | <u>10.70</u>       |

C-2

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: ATTACH STRUCTURE - AT<sub>111.4</sub>

GENERAL DESCRIPTION: Ferry Configuration. A welded rod assembly and fairing to support the aft part of Orbiter on the 747. Main struts and sway brace have streamlined fairings with following chords:

Main - 78 in., R.H. sway brace 34.73 in., terminal on the 747 have streamlined fairings.

MODEL SCALE: 0.04

DRAWING NO. 747-MD-686, S.O. 1284-201, -202, -206

| DIMENSIONS:             |                 | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|-------------------------|-----------------|-------------------|--------------------|
| Attach points on 747    |                 |                   |                    |
| Number of struts        |                 | <u>6</u>          | <u>6</u>           |
| Diameter In.            | Fwd. Legs (2)   | <u>12</u>         | <u>.48</u>         |
|                         | Aft Legs (2)    | <u>12</u>         | <u>.48</u>         |
|                         | R.H. Sway Brace | <u>6.25</u>       | <u>.25</u>         |
| Location In.            |                 |                   |                    |
|                         | BS 747          | <u>1445.3</u>     | <u>57.81</u>       |
| Fwd.                    | BWL 747         | <u>322.98</u>     | <u>12.92</u>       |
|                         | BEL 747         | <u>96.5</u>       | <u>3.86</u>        |
|                         | BS 747          | <u>1607</u>       | <u>64.28</u>       |
| Aft                     | BWL 747         | <u>329.0</u>      | <u>13.16</u>       |
|                         | BEL 747         | <u>96.5</u>       | <u>3.86</u>        |
| Attach point on Orbiter |                 |                   |                    |
|                         | BS 747          | <u>1607</u>       | <u>64.28</u>       |
|                         | BWL 747         | <u>400</u>        | <u>16.00</u>       |
|                         | BEL 747         | <u>96.5</u>       | <u>3.86</u>        |
|                         | BS Orbiter      | <u>1317</u>       | <u>52.68</u>       |
|                         | WL Orbiter      | <u>267.50</u>     | <u>10.70</u>       |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: BODY - B29B

GENERAL DESCRIPTION: Fuselage for the 747-100/200 airplane

Body spar places V-9.1.2 1/4 MAC at MS 101.197 and WL 21.12

Incidence block locates W45 1/4 MAC at MS 53.596. WL 7.63 and BL 19.614

747 MODEL SCALE: 0.040 MODEL: 1065

DRAWING NO.: 65-71436, S.O. 1284-175, -182

| DIMENSIONS:       | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|-------------------|-------------------|--------------------|
|                   | <u>Feet</u>       | <u>Inches</u>      |
| Length            | <u>225.17</u>     | <u>108.08</u>      |
| Max. Width        | <u>22.71</u>      | <u>10.90</u>       |
| Max. Depth Height | <u>25.52</u>      | <u>12.25</u>       |
| Fineness Ratio    | <u>10.57</u>      | <u>10.57</u>       |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: FLAP - F8.1

GENERAL DESCRIPTION: Inboard, double slotted trailing edge flap extending from WBL 5.138 to WBL 17.800. Used for  $10^\circ$  and  $20^\circ$  flap deflections.

747 (MODEL SCALE: 0.040) MODEL: 1065

DRAWING NO.: S.O. 1065-43, -45, -85, -194

| DIMENSIONS:       | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|-------------------|-------------------|--------------------|
|                   | <u>Feet</u>       | <u>Inches</u>      |
| Span (equivalent) | <u>26.38</u>      | <u>12.662</u>      |
| Main flap chord   | <u>8.83</u>       | <u>4.24</u>        |
| Fore flap chord   | <u>3.42</u>       | <u>1.64</u>        |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: FLAP - F<sub>8.2</sub>

GENERAL DESCRIPTION: Outboard, double slotted trailing edge flap extending from WBL 20.60 to WBL 32.88. Used for 10° and 20° flap deflections.

747 MODEL SCALE: 0.040

MODEL: 1065

DRAWING NO.: S.O. 1065-32, -33, -89, -135, -192, -193

| DIMENSIONS:             | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|-------------------------|-------------------|--------------------|
|                         | <u>Feet</u>       | <u>Inches</u>      |
| Span (equivalent)       | <u>25.58</u>      | <u>12.28</u>       |
| Main flap:              |                   |                    |
| Inb'd equivalent chord  | <u>6.90</u>       | <u>3.313</u>       |
| Outb'd equivalent chord | <u>5.15</u>       | <u>2.47</u>        |
| Fore flap:              |                   |                    |
| Inb'd equivalent chord  | <u>2.5</u>        | <u>1.20</u>        |
| Outb'd equivalent chord | <u>2.04</u>       | <u>0.98</u>        |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: FLAP - F9.1

GENERAL DESCRIPTION: Inboard triple slotted trailing edge flap  
extending from WBL 51.38 to WBL 17.800. Used for 30° flap deflection.

747 MODEL SCALE: 0.040

MODEL: 1065

DRAWING NO.: S.O. 1065-43 -45, -123

| DIMENSIONS:        | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|--------------------|-------------------|--------------------|
|                    | <u>Feet</u>       | <u>Inches</u>      |
| Span (equivalent)  | <u>26.38</u>      | <u>12.662</u>      |
| Chord (equivalent) |                   |                    |
| Main Flap          | <u>8.83</u>       | <u>4.24</u>        |
| Fore Flap          | <u>3.42</u>       | <u>1.640</u>       |
| Aft Flap           | <u>3.52</u>       | <u>1.688</u>       |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: FLAP - F9.2

GENERAL DESCRIPTION: Outboard triple slotted trailing edge flap extending from WBL 20.60 to WBL 32.88. Used for 30° flap deflection.

747 MODEL SCALE: 0.040 MODEL: 1065

DRAWING NO.: S.O. 1065-32, -33, -123

| DIMENSIONS:        | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|--------------------|-------------------|--------------------|
|                    | <u>Feet</u>       | <u>Inches</u>      |
| Span (equivalent)  | <u>25.58</u>      | <u>12.28</u>       |
| Chord (equivalent) |                   |                    |
| Main flap          |                   |                    |
| Inboard            | <u>6.90</u>       | <u>3.313</u>       |
| Outboard           | <u>5.15</u>       | <u>2.470</u>       |
| Fore flap          |                   |                    |
| Inboard            | <u>2.50</u>       | <u>1.200</u>       |
| Outboard           | <u>2.04</u>       | <u>0.980</u>       |
| Aft flap           |                   |                    |
| Inboard            | <u>2.79</u>       | <u>1.341</u>       |
| Outboard           | <u>2.03</u>       | <u>.974</u>        |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: LANDING GEAR - G5.3.5

GENERAL DESCRIPTION: Landing Gear; Full Length Struts, Oleo Extended,  
all Doors On. Mounting Brackets All Flush With Body

MODEL SCALE: 0.40

MODEL: 1065

DRAWING NUMBER: S.O. 1065-103, -104, -105, -108, -196, 1284-197

## DIMENSIONS:

MODEL SCALELANDING GEAR  
STRUT

|                           | Nose | Main Wing | Main Body |
|---------------------------|------|-----------|-----------|
| Number                    | 1    | 2         | 2         |
| Diameter in.              | .5   | .5        | .5        |
| Length in.                |      |           |           |
| Exposed                   | 4.0  | 6.12      | 3.47      |
| Pivot Point to Wheel Axis | 3.67 | 5.72      | 3.07      |

## WHEELS

|                   |       |       |       |
|-------------------|-------|-------|-------|
| Number            | 2     | 8     | 8     |
| Diameter in.      | 1.84  | 1.84  | 1.84  |
| Width in.         | .64   | .64   | .64   |
| Axis Location in. |       |       |       |
| B.S.              | 15.60 | 53.70 | 58.50 |
| B.L.              | 0     | 8.68  | 3.00  |
| W.L.              | .49   | .16   | .16   |

## DOORS

## Side

|            |      |      |         |          |
|------------|------|------|---------|----------|
| Number     | 2    | 2    | 2(inbd) | 2(outbd) |
| Length in. | 2.45 | 2.32 | 3.66    | 1.56     |
| Height in. | .94  | 3.89 | 2.32    | .92      |



TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: HORIZONTAL - H<sub>15.1</sub>

GENERAL DESCRIPTION: Swept leading edge horizontal tail mounted on the fuselage with the variable incidence pivot axis located at MS 103.76 and WL 11.70

747 MODEL SCALE: 0.040 MODEL: 1065

DRAWING NUMBER: 65-74129

| DIMENSIONS:                | <u>FULL SCALE</u><br><u>Feet</u> | <u>MODEL SCALE</u><br><u>Inches</u> |
|----------------------------|----------------------------------|-------------------------------------|
| TOTAL DATA                 |                                  |                                     |
| Area                       |                                  |                                     |
| Planform                   | <u>1470.0 sq.ft.</u>             | <u>2.35 sq.ft.</u>                  |
| Span (equivalent)          | <u>72.75</u>                     | <u>34.92</u>                        |
| Aspect Ratio               | <u>3.6</u>                       | <u>3.6</u>                          |
| Taper Ratio                | <u>0.25</u>                      | <u>0.25</u>                         |
| Dihedral Angle, degrees    | <u>7</u>                         | <u>7</u>                            |
| Incidence Angle, degrees   | <u>VARIABLE</u>                  | <u>VARIABLE</u>                     |
| Sweep Back Angles, degrees |                                  |                                     |
| Leading Edge               | <u>43</u>                        | <u>43</u>                           |
| Trailing Edge              |                                  |                                     |
| 0.25 Element Line          | <u>37.5</u>                      | <u>37.5</u>                         |
| Chords:                    |                                  |                                     |
| Root (Wing Sta. 0.0)       | <u>32.33</u>                     | <u>15.520</u>                       |
| Tip, (equivalent)          | <u>7.92</u>                      | <u>3.802</u>                        |
| MAC                        | <u>271.6 in.</u>                 | <u>10.864</u>                       |
| Fus. Sta. of .25 MAC       | <u>2564 in.</u>                  | <u>102.56</u>                       |
| W.P. of .25 MAC            | <u>311.25 in.</u>                | <u>12.45</u>                        |
| B.L. of .25 MAC            | <u>178.30 in.</u>                | <u>7.132</u>                        |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: HORIZONTAL - H15.6.1

GENERAL DESCRIPTION: H15.1 with 200 sq. ft. tip fins mounted on the horizontal at HBL 17.22 in vertical plane at BBL 17.09 with a streamlined strut fairing.

747 MODEL SCALE: 0.040 MODEL: 1065, 1284

DRAWING NO.: S.O. 1284-78, -80, -70, -187

| DIMENSIONS: (One fin) | <u>FULL SCALE</u>  | <u>MODEL SCALE</u>  |
|-----------------------|--------------------|---------------------|
|                       | <u>Feet</u>        | <u>Inches</u>       |
| Area                  | <u>200 sq. ft.</u> | <u>46.1 sq. in.</u> |
| Chord                 | <u>9.54</u>        | <u>4.582</u>        |
| Span                  | <u>20.96</u>       | <u>10.06</u>        |
| Max. Thickness        | <u>0.86</u>        | <u>0.412</u>        |
| Strut Fairing         |                    |                     |
| Chord                 | <u>2.64</u>        | <u>1.267</u>        |
| Thickness             | <u>.40</u>         | <u>.190</u>         |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: SLAT - J<sub>11.10.2</sub>

GENERAL DESCRIPTION: Leading edge flap located between the inboard and outboard nacelle struts. The outboard end was sealed to the outboard nacelle strut with wax.

747 MODEL SCALE: 0.040 MODEL: 1065

DRAWING NO.: S.O. 1065-64, -96, -127

| DIMENSIONS:       | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|-------------------|-------------------|--------------------|
|                   | <u>Feet</u>       | <u>Inches</u>      |
| Span (equivalent) | <u>30.33</u>      | <u>14.56</u>       |
| Equivalent chord  | <u>2.63</u>       | <u>1.263</u>       |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: SLAT - J<sub>13.8.1</sub>

GENERAL DESCRIPTION: Leading edge flap located between the outboard nacelle strut and the wing tip. (WBL 6.491 to WBL 45.696.)

727 MODEL SCALE: 0.040 MODEL: 1065

DRAWING NO.: S.O. 1065-65, 96-133

| DIMENSIONS:       | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|-------------------|-------------------|--------------------|
|                   | <u>Feet</u>       | <u>Inches</u>      |
| Span (equivalent) | <u>19.18</u>      | <u>9.205</u>       |
| Equivalent chord  | <u>2.0</u>        | <u>0.964</u>       |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: KRUEGER - L<sub>9.8.3</sub>

GENERAL DESCRIPTION: Inboard leading edge Krueger extending from WBL 9.763 to inboard nacelle strut.

747 MODEL SCALE: 0.040 MODEL: 1065

DRAWING NO.: S.O. 1065-75, -76, -77, -82, -131

| DIMENSIONS:             | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|-------------------------|-------------------|--------------------|
|                         | <u>Feet</u>       | <u>Inches</u>      |
| Span (equivalent)       | <u>18.83</u>      | <u>9.037</u>       |
| Inb'd equivalent chord  | <u>2.46</u>       | <u>1.183</u>       |
| Outb'd equivalent chord | <u>2.63</u>       | <u>1.261</u>       |
| Twist Deg.              | <u>9</u>          | <u>9</u>           |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: NACELLE STRUT - M<sub>25</sub>

GENERAL DESCRIPTION: Inboard nacelle strut located at WBL 18.80 at the wing leading edge.

747 MODEL SCALE: 0.040 MODEL: 1065

DRAWING NO.: S.O. 1065-31, -42, -46

| DIMENSIONS:          | <u>FULL SCALE</u> | <u>MODEL SCALE</u>                         |
|----------------------|-------------------|--|
| Canted inboard, deg. | <u>2</u>          | <u>2</u>                                   |
| For use with         |                   | <u>N<sub>57</sub> &amp; N<sub>77</sub></u> |
| WBL location         |                   | <u>18.800</u>                              |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: NACELLE STRUT -  $M_{26}$

GENERAL DESCRIPTION: Outboard nacelle strut located at the wing leading edge.

747 MODEL SCALE: 0.040

MODEL: 1065

DRAWING NO.: S.O. 1065-31, -42, -46, -350

| DIMENSIONS:          | <u>FULL SCALE</u> | <u>MODEL SCALE</u>                         |
|----------------------|-------------------|--|
| Canted inboard, deg. | <u>2</u>          | <u>2</u>                                   |
| WBL location         |                   | <u>33.360</u>                              |
| For use with         |                   | <u>N<sub>57</sub> &amp; N<sub>78</sub></u> |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: NACELLE - N<sub>57</sub>

GENERAL DESCRIPTION: Flow-through inboard 747-100 nacelle mounted on nacelle strut at WBL 19.761. Nacelle centerline canted inboard 2°.

747 MODEL SCALE: 0.040 MODEL: 1065

DRAWING NUMBER: S.O. 1065-15, -46, -314, -315

| <u>DIMENSIONS: - FT.</u> | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|--------------------------|-------------------|--------------------|
| Length:                  |                   |                    |
| Cowl                     | <u>8.6</u>        | <u>.344</u>        |
| Cowl + Engine            | <u>17.9</u>       | <u>.716</u>        |
| Max diameter             | <u>8.5</u>        | <u>.340</u>        |
| Hilite diameter          | <u>7.3</u>        | <u>.292</u>        |



TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: NACELLE - N<sub>58</sub>

GENERAL DESCRIPTION: Flow-through outboard 747-100 nacelle mounted on strut at WBL 33.960. Nacelle centerline cented 2° inboard.

MODEL SCALE: 0.040 MODEL: 1065

DRAWING NUMBER: S.O. 1065-15, -46, -314, -315

| <u>DIMENSIONS: - FT.</u> | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|--------------------------|-------------------|--------------------|
| Length:                  |                   |                    |
| Cowl                     | <u>8.6</u>        | <u>.344</u>        |
| Cowl + Engine            | <u>17.9</u>       | <u>.716</u>        |
| Max diameter             | <u>8.5</u>        | <u>.340</u>        |
| Hilite diameter          | <u>7.3</u>        | <u>.292</u>        |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: SPOILERS -  $S_{1-12}$

GENERAL DESCRIPTION: Multi-panel flight spoilers. Four outboard and two inboard spoilers per side. Subscript denotes spoiler panel  $S_1$  is the most outboard L.H. panel and  $S_{12}$  is most outboard R.H. panel.

747 MODEL SCALE: 0.040 MODEL: 1065

DRAWING NO.: 65-71450, S.O. 1065-51, -59, -81, -173

| DIMENSIONS: (One panel)                              | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|--|-------------------|--------------------|
|  | <u>Feet</u>       | <u>Inches</u>      |
| Outboard $S_{1-4}$ and $S_{9-12}$ (Ft <sup>2</sup> ) | <u>21.48</u>      | <u>0.034</u>       |
| Span (equivalent)                                    | <u>6.25</u>       | <u>3.00</u>        |
| Chord  | <u>3.44</u>       | <u>1.65</u>        |
| Inboard $S_{5-6}$ and $S_{7-8}$ (Ft <sup>2</sup> )   | <u>35.31</u>      | <u>.0565</u>       |
| Span (equivalent)                                    | <u>7.50</u>       | <u>3.60</u>        |
| Chord  | <u>4.71</u>       | <u>2.26</u>        |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: FLAP TRACK FAIRING - T<sub>14</sub>

GENERAL DESCRIPTION: Fairings located at WBL 9.408, 14.120, 23.299 and 29.753.

747 MODEL SCALE: 0.040 MODEL: 1065

DRAWING NO.: S.O. 1065-84, -124, -135

| DIMENSIONS:             | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|-------------------------|-------------------|--------------------|
|                         | <u>Inches</u>     | <u>Inches</u>      |
| WBL locations           | <u>235.2</u>      | <u>9.408</u>       |
|                         | <u>353.0</u>      | <u>14.120</u>      |
|                         | <u>584.98</u>     | <u>23.399</u>      |
|                         | <u>743.83</u>     | <u>29.753</u>      |
| Use with clean wing and |                   | <u>F8.1</u>        |
|                         |                   | <u>F8.2</u>        |
|                         |                   | <u>F9.1</u>        |
|                         |                   | <u>F9.2</u>        |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: VERTICAL - V9.1.2

GENERAL DESCRIPTION: Swept vertical tail mounted on fuselage center-line.

MODEL SCALE: 0.040

DRAWING NUMBER: 65-74142, S.O. 1065-6, -359, -426, S.O. 1284-182

| DIMENSIONS:                   | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|-------------------------------|-------------------|--------------------|
| TOTAL DATA                    |                   |                    |
| Area (Theo) - Ft <sup>2</sup> | <u>830</u>        | <u>1.328</u>       |
| Planform                      |                   |                    |
| Span (Theo) - In.             | <u>386.50</u>     | <u>15.46</u>       |
| Aspect Ratio                  | <u>1.25</u>       | <u>1.25</u>        |
| Taper Ratio                   | <u>0.34</u>       | <u>0.34</u>        |
| Sweep-Back Angles, Degrees    |                   |                    |
| Leading Edge                  | <u>50.125</u>     | <u>50.125</u>      |
| Trailing Edge                 | <u>67.813</u>     | <u>67.813</u>      |
| Chords:                       |                   |                    |
| Root (Theo) WP                | <u>461.55</u>     | <u>18.478</u>      |
| Tip (Theo) WP                 | <u>156.93</u>     | <u>6.277</u>       |
| MAC                           | <u>334.16</u>     | <u>13.37</u>       |
| Fus. Sta. of .25 MAC          | <u>2529.91</u>    | <u>101.197</u>     |
| W.L. of .25 MAC               | <u>528.0</u>      | <u>21.12</u>       |
| B.L. of .25 MAC               | <u>0</u>          | <u>0</u>           |

TABLE III a. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: WING W<sub>45</sub>.

GENERAL DESCRIPTION: Swept wing of the 747-100 Airplane

747 MODEL SCALE: .040 MODEL: 1065

DRAWING NUMBER: 65-71450, 65-71436, 65-71449

| DIMENSIONS:                | <u>FULL SCALE</u>          | <u>MODEL SCALE</u>         |
|----------------------------|----------------------------|----------------------------|
|                            | <u>Inches</u>              | <u>Inches</u>              |
| Area                       |                            |                            |
| Planform                   | <u>5500 Ft<sup>2</sup></u> | <u>8.80 Ft<sup>2</sup></u> |
| Span (equivalent)          | <u>195.67 Ft</u>           | <u>93.92</u>               |
| Aspect Ratio               | <u>6.96</u>                | <u>6.96</u>                |
| Taper Ratio                | <u>0.356</u>               | <u>0.356</u>               |
| Dihedral Angle, degrees    | <u>7</u>                   | <u>7</u>                   |
| Incidence Angle, degrees   | <u>2</u>                   | <u>2</u>                   |
| Sweep Back Angles, degrees |                            |                            |
| Leading Edge               | <u>42.30</u>               | <u>42.30</u>               |
| 0.25 Element Line          | <u>37.5</u>                | <u>37.5</u>                |
| Chords:                    |                            |                            |
| Root (Wing Sta. 0.0)       | <u>652.0</u>               | <u>26.081</u>              |
| Tip (equivalent)           | <u>160.0</u>               | <u>6.40</u>                |
| MAC                        | <u>327.78</u>              | <u>13.112</u>              |
| Fus. of .25 MAC            | <u>1339.91</u>             | <u>53.596</u>              |
| W.P. of .25 MAC            | <u>190.75</u>              | <u>7.63</u>                |
| B.L. of .25 MAC            | <u>490.35</u>              | <u>19.614</u>              |

TABLE III. MODEL DIMENSIONAL DATA (Continued)  
b. Orbiter

MODEL COMPONENT: BODY - B<sub>26</sub>

GENERAL DESCRIPTION: Configuration 140A/B Orbiter fuselage

NOTE: B<sub>26</sub> is identical to B<sub>24</sub> except underside of fuselage has been refaired to accept W<sub>116</sub>.

MODEL SCALE: 0.0405 MODEL DRAWING: SS-101185 RELEASE: 3

DRAWING NUMBER: VL70-000143B, -000200, -000205, -006089, -000145,  
VL70-000140A, -000140B

| DIMENSIONS:                             | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|---|-------------------|--------------------|
| Length (OML: Fwd Sta $X_0 = 235$ ), In. | <u>1293.3</u>     | <u>52.379</u>      |
| Length (IML: Fwd Sta $X_0 = 238$ ), In. | <u>1290.3</u>     | <u>52.257</u>      |
| Max Width (@ $X_0 = 1528.30$ ), In.     | <u>264.0</u>      | <u>10.692</u>      |
| Max Depth (@ $X_0 = 1464$ ), In.        | <u>250.0</u>      | <u>10.125</u>      |
| Fineness Ratio                          | <u>0.26357</u>    | <u>0.26357</u>     |
| Area - Ft <sup>2</sup>                  |                   |                    |
| Max. Cross-Sectional                    | <u>340.88</u>     | <u>0.559</u>       |

TABLE III b. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: CANOPY - C<sub>9</sub>

GENERAL DESCRIPTION: Configuration 3A. Canopy used with fuselage B<sub>26</sub>.

MODEL SCALE: 0.0405

MODEL DRAWING: SS-400147; RELEASE 12

DRAWING NUMBER: VL70-000143A

| DIMENSIONS:                              | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|--|-------------------|--------------------|
| Length ( $X_o = 434.643$ to $578$ ), In. | <u>143.357</u>    | <u>5.806</u>       |
| Max Width (@ $X_o = 513.127$ ),          | <u>152.412</u>    | <u>6.173</u>       |
| Max Depth (@ $X_o = 485.0$ )             | <u>25.000</u>     | <u>1.013</u>       |

TABLE III b. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: SLOTTED ELEVON (6-INCH GAP) - E<sub>44</sub>

GENERAL DESCRIPTION: Configuration 140A/B orbiter elevon.

NOTE: E<sub>44</sub> is a slotted version of E<sub>26</sub>. Data are for one side.

MODEL SCALE: 0.0405

DRAWING NUMBER: VL70-000200, -006089, -006092

| DIMENSIONS:  | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|--|-------------------|--------------------|
| Area, Ft <sup>2</sup>                                      | <u>210.0</u>      | <u>0.344</u>       |
| Span (equivalent). In.                                     | <u>349.2</u>      | <u>14.143</u>      |
| Inb'd equivalent chord, In.                                | <u>118.004</u>    | <u>4.779</u>       |
| Outb'd equivalent chord, In.                               | <u>55.192</u>     | <u>2.2353</u>      |
| Ratio movable surface chord/<br>total surface chord        |                   |                    |
| At Inb'd equiv. chord                                      | <u>0.2096</u>     | <u>0.2096</u>      |
| At Outb'd equiv. chord                                     | <u>0.4004</u>     | <u>0.4004</u>      |
| Sweep Back Angles, degrees                                 |                   |                    |
| Leading Edge   | <u>0.00</u>       | <u>0.00</u>        |
| Trailing Edge  | <u>-10.056</u>    | <u>-10.056</u>     |
| Hingeline  | <u>0.0</u>        | <u>0.0</u>         |
| Area Moment (Product of Area & $\bar{c}$ ) Ft <sup>3</sup> | <u>1587.25</u>    | <u>0.105</u>       |
| Mean Aerodynamic Chord, In.                                | <u>90.7</u>       | <u>3.673</u>       |



TABLE III b. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: BODY FLAP - F8

GENERAL DESCRIPTION: Configuration 140A/B orbiter body flap. Hinge-line located at  $X_0 = 1532.0$ .  $Z_0 = 287.0$

MODEL SCALE: 0.0405 MODEL DRAWING: SS-A00147, RELEASE 12

DRAWING NUMBER: VL70-000140A. VL70-000145

| DIMENSIONS:                               | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|---|-------------------|--------------------|
| Length ( $X_0 = 1521.4$ to $X_0 = 1613$ ) | <u>91.60</u>      | <u>3.71</u>        |
| Max Width, In.                            | <u>262.00</u>     | <u>10.61</u>       |
| Max Depth (@ $X_0 = 1520$ ), In.          | <u>23.00</u>      | <u>0.93</u>        |
| Fineness Ratio                            | <u>          </u> | <u>          </u>  |
| Area - Ft <sup>2</sup>                    |                   |                    |
| Max. Cross-Sectional                      | <u>          </u> | <u>          </u>  |
| Planform                                  | <u>150.525</u>    | <u>0.246</u>       |
| Wetted                                    | <u>          </u> | <u>          </u>  |
| Base                                      | <u>41.84722</u>   | <u>0.069</u>       |

TABLE III b. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: OMS POD - M<sub>16</sub>

GENERAL DESCRIPTION: Configuration 140C

Orbiter OMS pod - short pod.

MODEL SCALE: 0.0405

DRAWING NUMBER: VL70-008401, VL70-008410

| DIMENSIONS:                                | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|--|-------------------|--------------------|
| Length (OMS Fwd Sta. $X_0 = 1310.5$ ), In. | <u>258.50</u>     | <u>10.469</u>      |
| Max Width (@ $X_0 = 1511$ ), In.           | <u>136.8</u>      | <u>5.540</u>       |
| Max Depth (@ $X_0 = 1511$ ), In.           | <u>74.70</u>      | <u>3.025</u>       |
| Fineness Ratio                             | <u>2.484</u>      | <u>2.484</u>       |
| Area - Ft <sup>2</sup>                     |                   |                    |
| Max. Cross-Sectional                       | <u>58.864</u>     | <u>0.0966</u>      |

TABLE III b. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: MPS NOZZLES - N<sub>24</sub>

GENERAL DESCRIPTION: Configuration 140A/B orbiter MPS nozzles.

MODEL SCALE: 0.0405 MODEL DRAWING: SS-A00147, RELEASE 12

DRAWING NUMBER: VL70-005030A, VL70-000140A

| DIMENSIONS:                  | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|------------------------------|-------------------|--------------------|
| MACH NO.                     |                   |                    |
| Length - In.                 |                   |                    |
| Gimbal Point to Exit Plane   | <u>157.0</u>      | <u>6.36</u>        |
| Throat to Exit Plane         | <u>99.2</u>       | <u>4.02</u>        |
| Diameter - In.               |                   |                    |
| Exit                         | <u>91.00</u>      | <u>3.69</u>        |
| Throat                       | <u>          </u> | <u>          </u>  |
| Inlet                        | <u>          </u> | <u>          </u>  |
| Area - Ft <sup>2</sup>       |                   |                    |
| Exit                         | <u>45.166</u>     | <u>.07408</u>      |
| Throat                       | <u>          </u> | <u>          </u>  |
| Gimbal Point (Station) - In. |                   |                    |
| Upper Nozzle                 |                   |                    |
| X <sub>o</sub>               | <u>1445.</u>      | <u>58.52</u>       |
| Y <sub>o</sub>               | <u>0</u>          | <u>0</u>           |
| Z <sub>o</sub>               | <u>443</u>        | <u>17.94</u>       |
| Lower Nozzle                 |                   |                    |
| X <sub>o</sub>               | <u>1468.17</u>    | <u>59.46</u>       |
| Y <sub>o</sub>               | <u>± 53.00</u>    | <u>± 2.15</u>      |
| Z <sub>o</sub>               | <u>342.640</u>    | <u>13.88</u>       |
| Null Position - Deg.         |                   |                    |
| Upper Nozzle                 |                   |                    |
| Pitch                        | <u>16°</u>        | <u>16°</u>         |
| Yaw                          | <u>0°</u>         | <u>0°</u>          |
| Lower Nozzle                 |                   |                    |
| Pitch                        | <u>10°</u>        | <u>10°</u>         |
| Yaw                          | <u>3.5°</u>       | <u>3.5°</u>        |

TABLE III b. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: OMS NOZZLES - N<sub>28</sub>

GENERAL DESCRIPTION: Configuration 140A/B orbiter OMS nozzles

MODEL SCALE: 0.0405 SS-A00106. RELEASE 5 (Contour)

DRAWING NUMBER: VL70-000140A (Location)

| DIMENSIONS:                  | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|------------------------------|-------------------|--------------------|
| MACH NO.                     |                   |                    |
| Length - In.                 |                   |                    |
| Gimbal Point to Exit Plane   |                   |                    |
| Throat to Exit Plane         |                   |                    |
| Diameter - In.               |                   |                    |
| Exit                         |                   |                    |
| Throat                       |                   |                    |
| Inlet                        |                   |                    |
| Area - Ft <sup>2</sup>       |                   |                    |
| Exit                         |                   |                    |
| Throat                       |                   |                    |
| Gimbal Point (station) - In. |                   |                    |
| Left Nozzle                  |                   |                    |
| X <sub>O</sub>               | 1518.00           | 61.48              |
| Y <sub>O</sub>               | -88.0             | -3.56              |
| Z <sub>O</sub>               | 492.00            | 19.93              |
| Right Nozzles                |                   |                    |
| X <sub>O</sub>               | 1518.00           | 61.48              |
| Y <sub>O</sub>               | 88.00             | 3.56               |
| Z <sub>O</sub>               | 492.0             | 19.93              |
| Null Position - Deg.         |                   |                    |
| Left Nozzle                  |                   |                    |
| Pitch                        | 15°49'            | 15°49'             |
| Yaw                          | 12°17'            | 12°17'             |
| Right Nozzle                 |                   |                    |
| Pitch                        | 15°49'            | 15°49'             |
| Yaw                          | 12°17'            | 12°17'             |

TABLE III b. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: RUDDER - R<sub>5</sub>

GENERAL DESCRIPTION: Configuration 140C orbiter rudder (identical to configuration 140A/B rudder)

MODEL SCALE: 0.0405

DRAWING NUMBER: VL70-000146B, VL70-000095

| DIMENSIONS:  | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|--|-------------------|--------------------|
| Area - Ft <sup>2</sup>                                     | <u>100.15</u>     | <u>0.1643</u>      |
| Span (equivalent), In.                                     | <u>201.00</u>     | <u>8.141</u>       |
| Inb'd equivalent chord, In.                                | <u>91.585</u>     | <u>3.709</u>       |
| Outb'd equivalent chord, In.                               | <u>50.833</u>     | <u>2.059</u>       |
| Ratio movable surface chord/<br>total surface chord        |                   |                    |
| At Inb'd equiv. chord                                      | <u>0.400</u>      | <u>0.400</u>       |
| At outb'd equiv. chord                                     | <u>0.400</u>      | <u>0.400</u>       |
| Sweep Back Angles. degrees                                 |                   |                    |
| Leading Edge   | <u>34.83</u>      | <u>34.83</u>       |
| Trailing Edge  | <u>26.25</u>      | <u>26.25</u>       |
| Hingeline  | <u>34.83</u>      | <u>34.83</u>       |
| Area Moment (Product of area & $\bar{c}$ ) Ft <sup>3</sup> | <u>610.92</u>     | <u>0.0406</u>      |
| Mean Aerodynamic Chord, In.                                | <u>73.2</u>       | <u>2.965</u>       |

TABLE III b. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: SS - SUGAR SCOOPS

GENERAL DESCRIPTION: Two deflector vanes located above the MPS top center nozzle. Vanes are simulated by flat plates attached to a strut which mounts on the MPS nozzle aft surface.

MODEL SCALE: .0405

| DIMENSIONS:                                | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|--|-------------------|--------------------|
| Vane width, in.                            | <u>24.7</u>       | <u>1.0</u>         |
| Vane height, in.                           | <u>37.0</u>       | <u>1.5</u>         |
| Vane incidence angle to strut, deg.        | <u>45</u>         | <u>45</u>          |
| Strut incidence to nozzle exit plane, deg. | <u>16</u>         | <u>16</u>          |
| Strut cant from orbiter centerline, deg.   | <u>10</u>         | <u>10</u>          |

TABLE III b. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: TC<sub>19</sub> UPSWEPT BEAVER TAIL - ORBITER TAILCONE

GENERAL DESCRIPTION: An orbiter tail fairing tapering to a rounded aft end in the horizontal plane.

Orbiter (0.0405 Scale)

DRAWING NUMBER: BCD-V70-30-330

| DIMENSIONS                | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|---------------------------|-------------------|--------------------|
| Length                    | <u>34.96 Ft</u>   | <u>16.99 In.</u>   |
| Max Width                 | <u>25.0 Ft</u>    | <u>12.15 In.</u>   |
| Max Height                | <u>22.22 Ft</u>   | <u>10.80 In.</u>   |
| Tailcone Width at Aft Tip | <u>4.12 Ft</u>    | <u>2.0 In.</u>     |

TABLE III b. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: VERTICAL - V<sub>8</sub>

GENERAL DESCRIPTION: Configuration 140C orbiter vertical tail

(identical to configuration 140A/B vertical tail)

MODEL SCALE: 0.0405

DRAWING NUMBER: VL70-000140C, VL70-000146B

| DIMENSIONS:                   | <u>FULL SCALE</u> | <u>MODEL SCALE</u> |
|-------------------------------|-------------------|--------------------|
| TOTAL DATA                    |                   |                    |
| Area (Theo) - Ft <sup>2</sup> |                   |                    |
| Planform                      | 413.253           | 0.678              |
| Span (Theo) - In.             | 315.72            | 12.787             |
| Aspect Ratio                  | 1.675             | 1.675              |
| Rate of Taper                 | 0.507             | 0.507              |
| Taper Ratio                   | 0.404             | 0.404              |
| Sweep-Back Angles, Degrees    |                   |                    |
| Leading Edge                  | 45.00             | 45.00              |
| Trailing Edge                 | 26.25             | 26.25              |
| 0.25 Element Line             | 41.13             | 41.13              |
| Chords:                       |                   |                    |
| Root (Theo) WP                | 268.50            | 10.874             |
| Tip (Theo) WP                 | 108.47            | 4.393              |
| MAC                           | 199.81            | 8.092              |
| Fus. Sta. of .25 MAC          | 1463.35           | 59.272             |
| W.P. of .25 MAC               | 635.52            | 25.738             |
| B.L. of .25 MAC               | 0.00              | 0.00               |
| Airfoil Section               |                   |                    |
| Leading Wedge Angle - Deg.    | 10.00             | 10.00              |
| Trailing Wedge Angle - Deg.   | 14.92             | 14.92              |
| Leading Edge Radius           | 2.00              | 0.0810             |
| Void Area                     | 13.17             | 0.022              |
| Blanketed Area                | 0.0               | 0.0                |



TABLE III b. MODEL DIMENSIONAL DATA (Concluded)

MODEL COMPONENT: WING-W116

GENERAL DESCRIPTION: Configuration 4

NOTE: Identical to W114 except airfoil thickness. Dihedral angle is a long trailing edge of wing.

MODEL SCALE: 0.0405

TEST NO.

DWG. NO.: VL70-000140A, -000200

DIMENSIONS:

FULL SCALEMODEL SCALETOTAL DATAArea (Theo) - Ft<sup>2</sup>

Planform

2690.00

4.412

Span (Theo) - In.

936.68

37.936

Aspect Ratio

2.265

2.265

Rate of Taper

1.177

1.177

Taper Ratio

0.200

0.200

Dihedral Angle, degrees

3.500

3.500

Incidence Angle, degrees

0.500

0.500

Aerodynamic Twist, degrees

+ 3.000

+ 3.000

Sweep Back Angles, degrees

Leading Edge

45.000

45.000

Trailing Edge

- 10.056

- 10.056

0.25 Element Line

35.209

35.209

Chords:

Root (Theo) B.P.O.O.

689.24

27.914

Tip (Theo) D.P.

137.85

5.583

MAC

474.81

19.230

Fus.Sta. of .25 MAC

1136.83

46.042

W.P. of .25 MAC

290.58

11.768

B.L. of .25 MAC

182.13

7.376

EXPOSED DATAArea (Theo) - Ft<sup>2</sup>

1751.50

2.873

Span, (Theo) - In. BP108

720.68

29.188

Aspect Ratio

2.059

2.059

Taper Ratio

0.245

0.245

Chords

Root BP10

562.09

22.765

Tip 1.00 b/2

137.85

5.583

MAC

392.83

15.910

Fus. Sta. of .25 MAC

1185.98

48.032

W.P. of .25 MAC

294.30

11.919

B.L. of .25 MAC

251.77

10.197

Airfoil Section (Rockwell Mod NASA)XXXX-64

Root b/2

0.113

0.113

Tip b/2

0.12

0.12

Data for (1) of (2) Sides

Leading Edge Cuff

Planform Area - Ft<sup>2</sup>

113.18

0.185

Leading Edge Intersects Fus M.L. @ Sta.

500.00

20.250

Leading Edge Intersects Wing @ Sta.

1024.00

41.472

Notes:

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

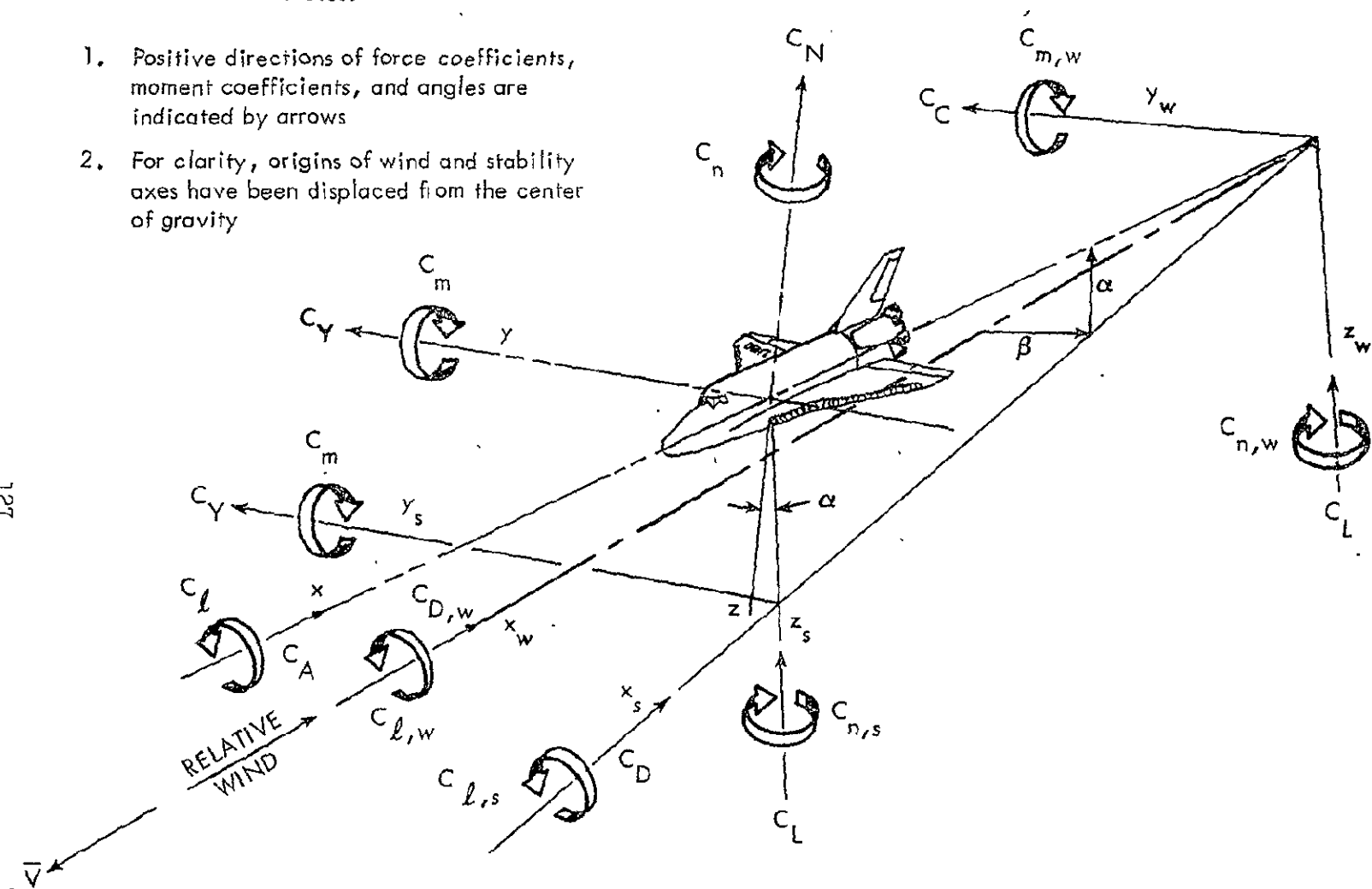
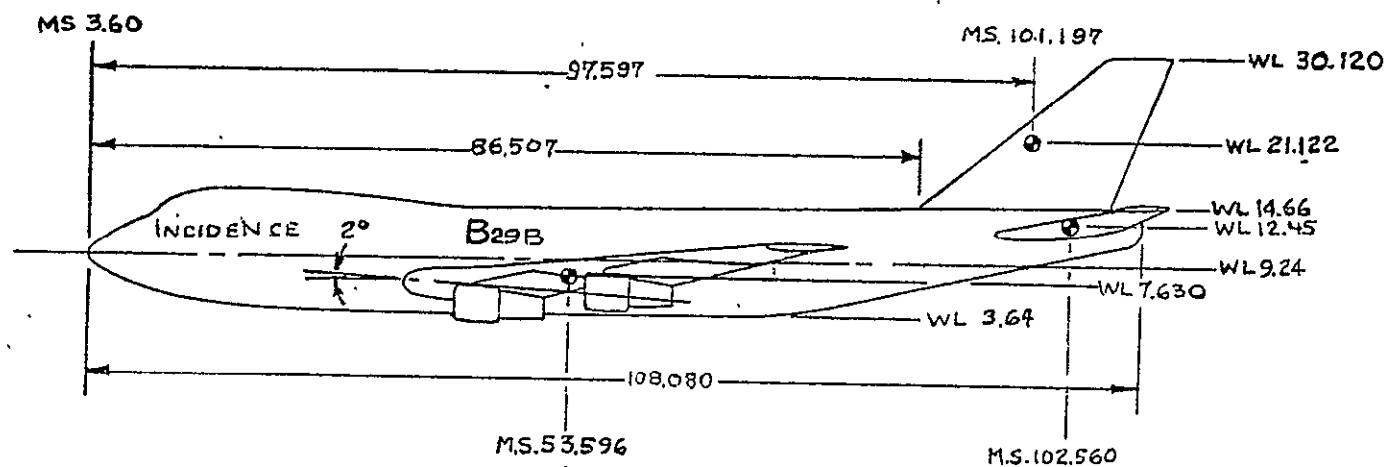
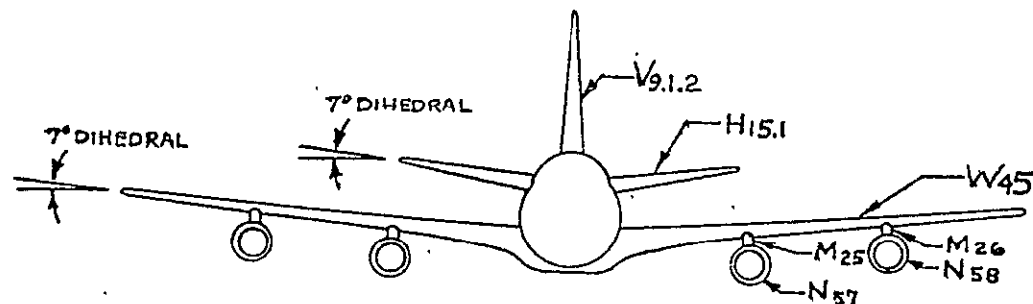


Figure 1. - Axis Systems.



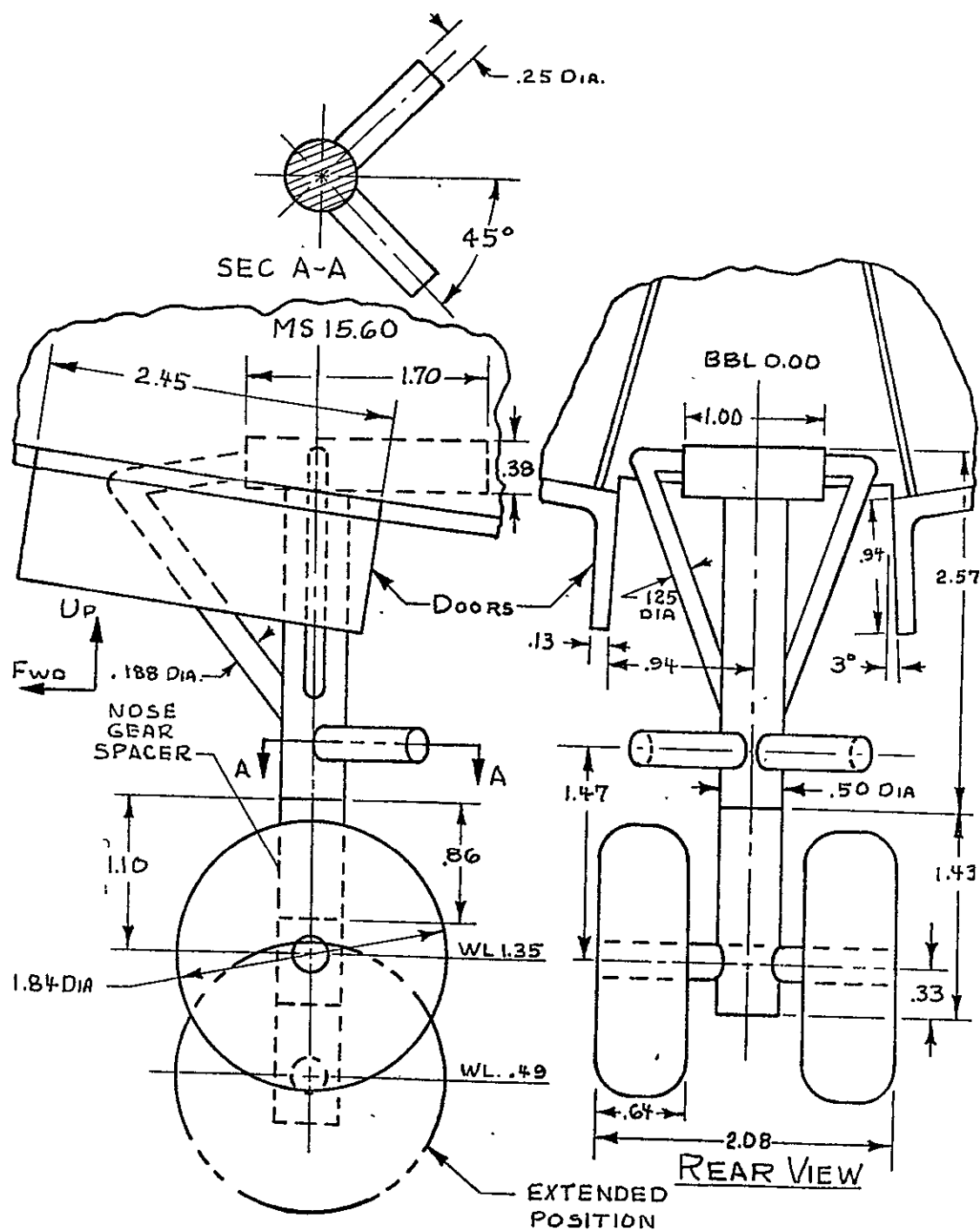
⊙ INDICATES 25 % MAC LOCATION

B<sub>29</sub>W<sub>45</sub>V<sub>9.12</sub>M<sub>25</sub><sup>35</sup>N<sub>57</sub><sup>57</sup>H<sub>15.1</sub>T<sub>14</sub>



b. 747-100 Carrier Front and Side Views.  
Figure 2. - (Continued)

REF: Dwg 65-71450  
65-71456  
65-74129

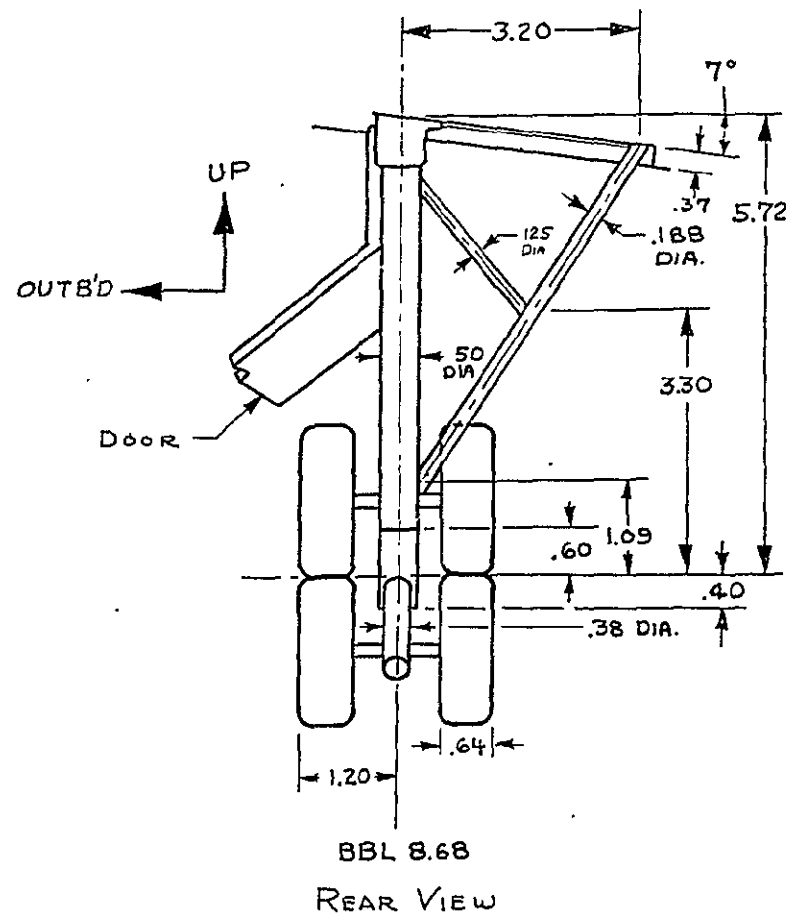
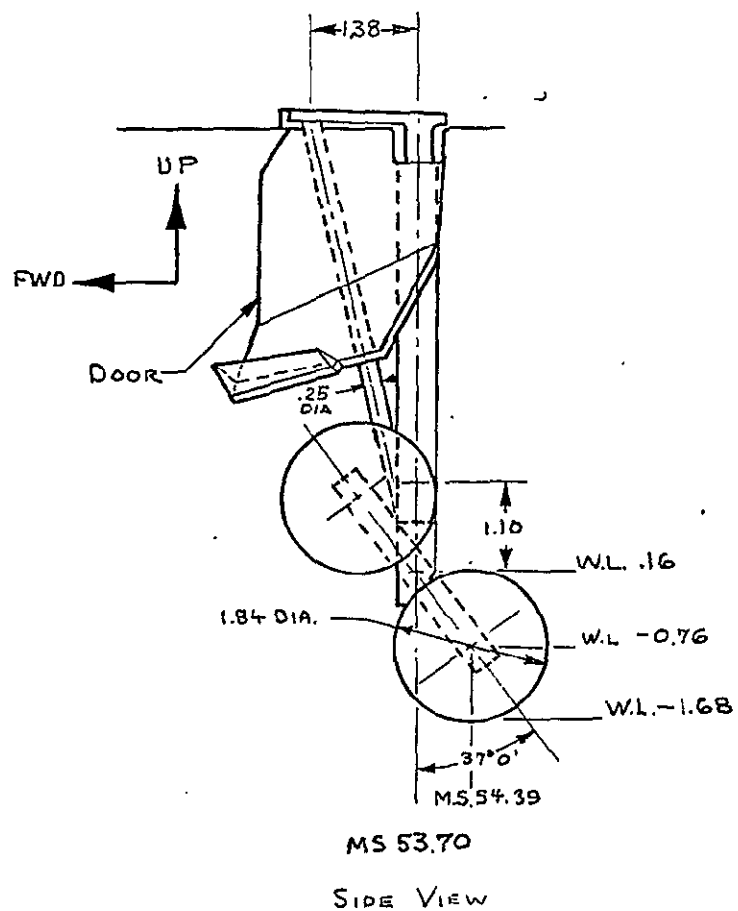


**NOSE GEAR-G<sub>5.3.5</sub>**

REF S.O 1065-101,-108

c. 747-100 Carrier Nose Gear.

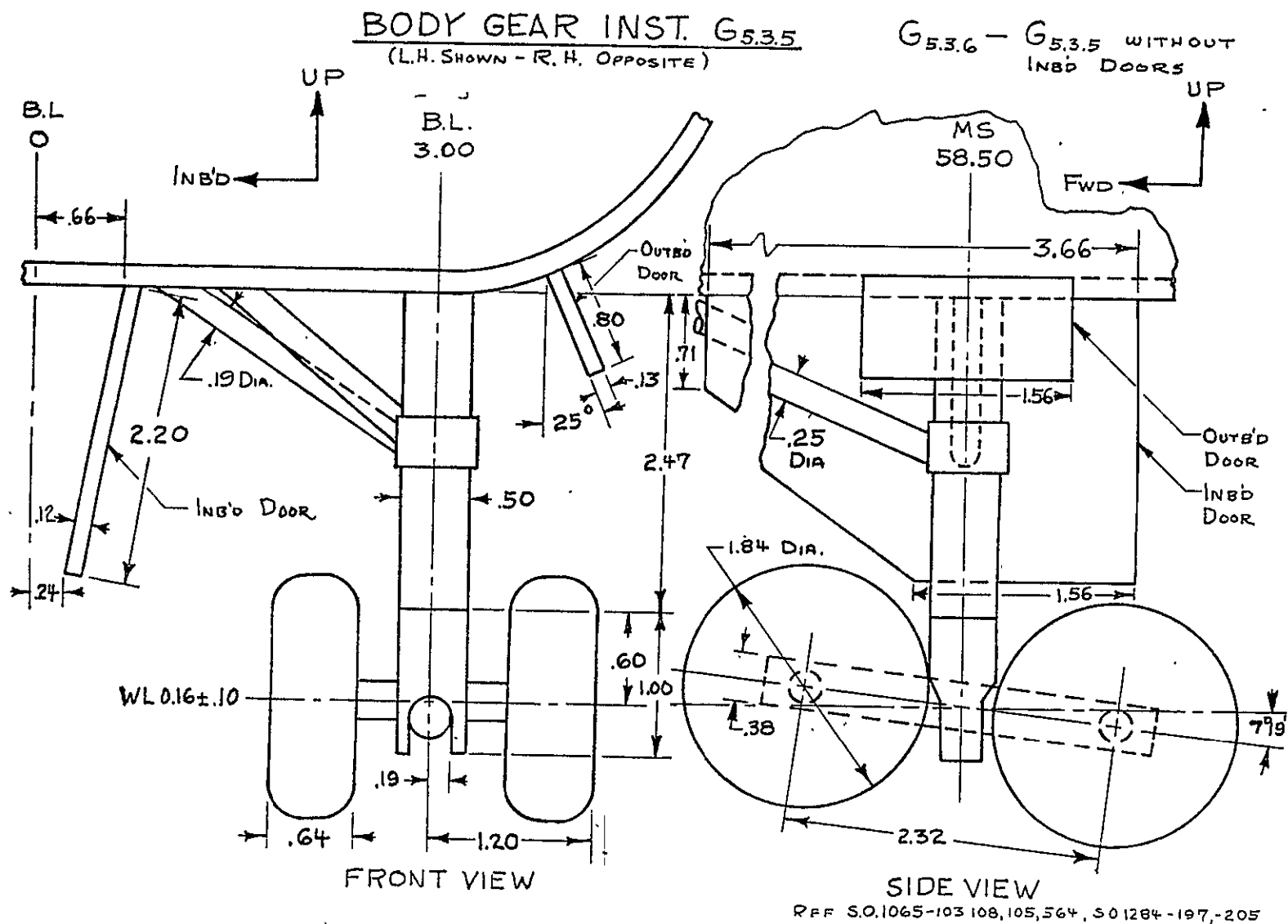
Figure 2. - (Continued).



WING LANDING GEAR G5.3.5  
(L.H. SHOWN R.H. OFF.)

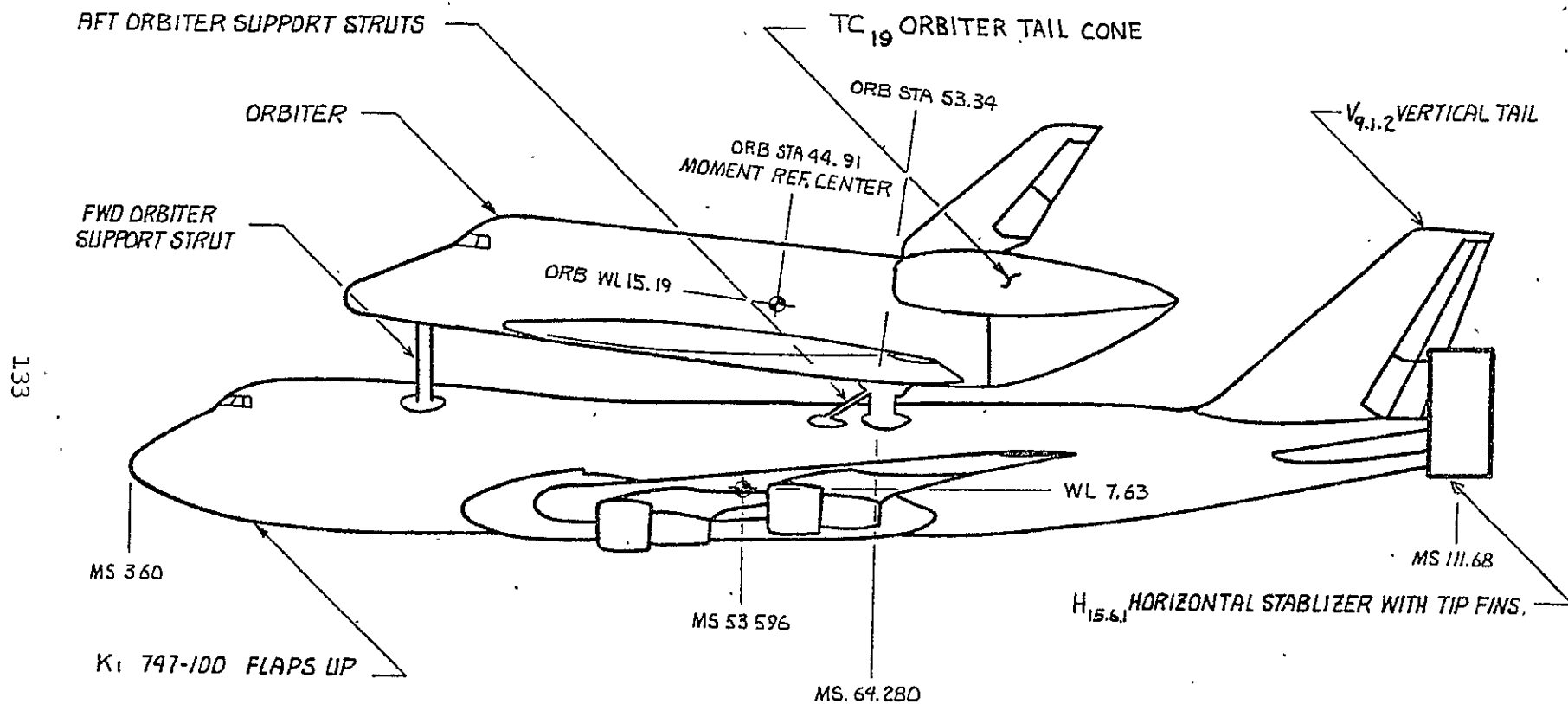
REF 50 1065-103,-104

- d. 747-100 Carrier Wing Landing Gear.  
Figure 2. - (Continued).



e. 747-100 Carrier Body Gear.

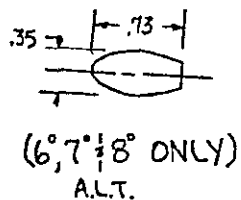
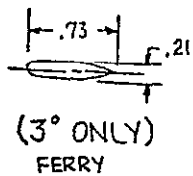
Figure 2. - (Continued).



f. 747-100 and Orbiter Space Shuttle Configuration.  
Figure 2. - (Continued).

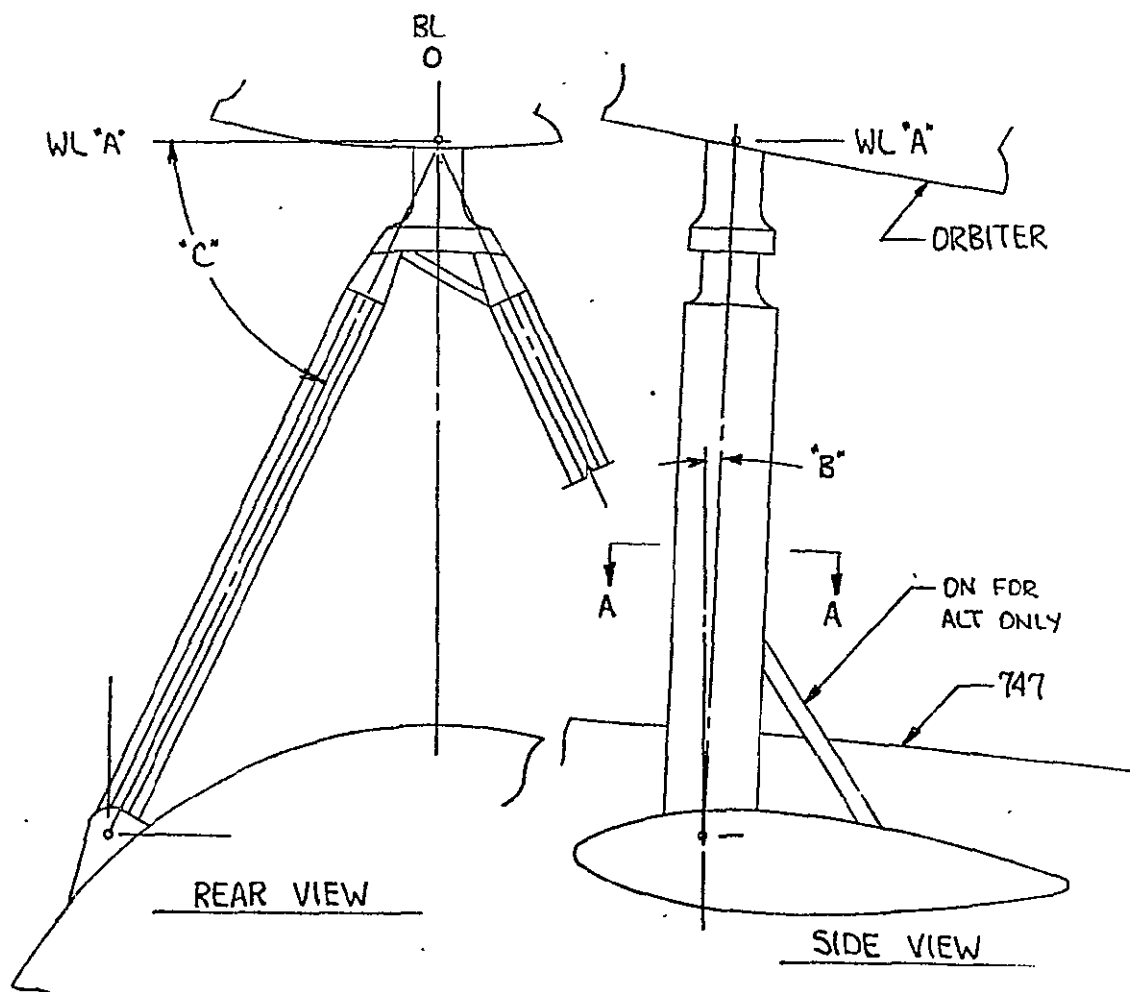


DIMENSIONS IN INCHES



SECTION A-A

| ORB. | WL<br>"A" | ANGLE<br>"B" | ANGLE<br>"C" |
|------|-----------|--------------|--------------|
| 3°   | 18.57     | 0°-9'        | 54°-17'      |
| 6°   | 20.51     | 1°-59'       | 64°-46'      |
| 7°   | 21.15     | 2°-33'       | 67°-05'      |
| 8°   | 21.79     | 3°-6'        | 69°-02'      |

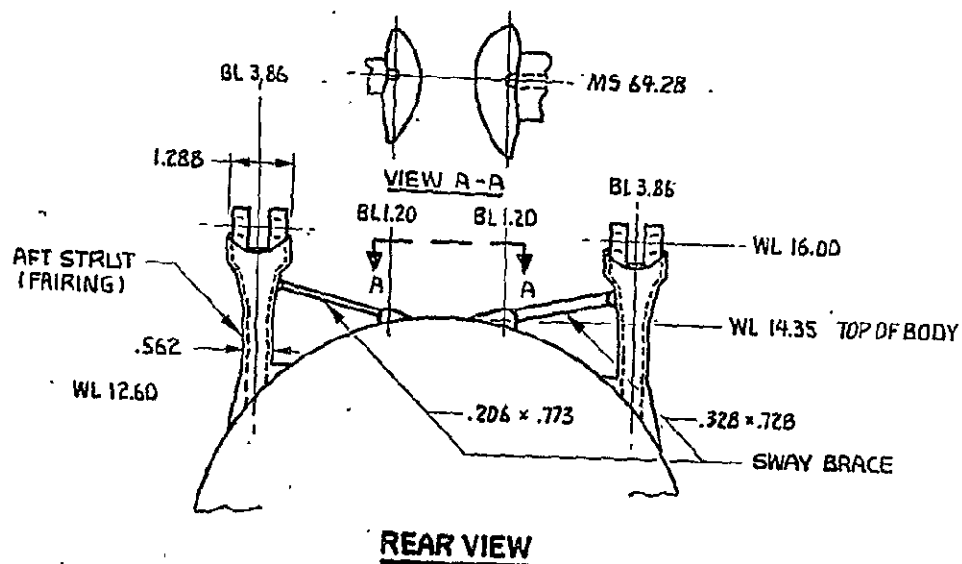
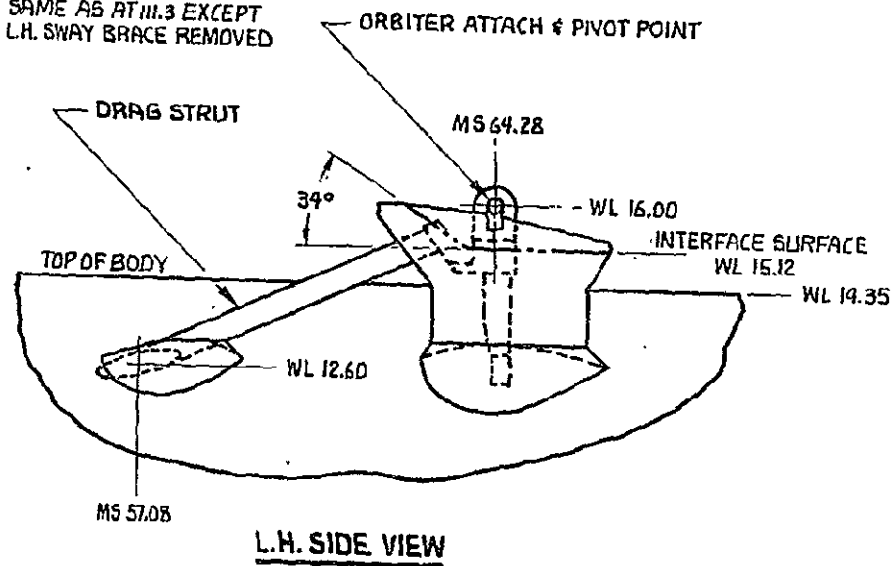


g. Forward Orbiter Support Structure.

Figure 2. - (Continued).

AT III.3 ALT CONFIGURATION

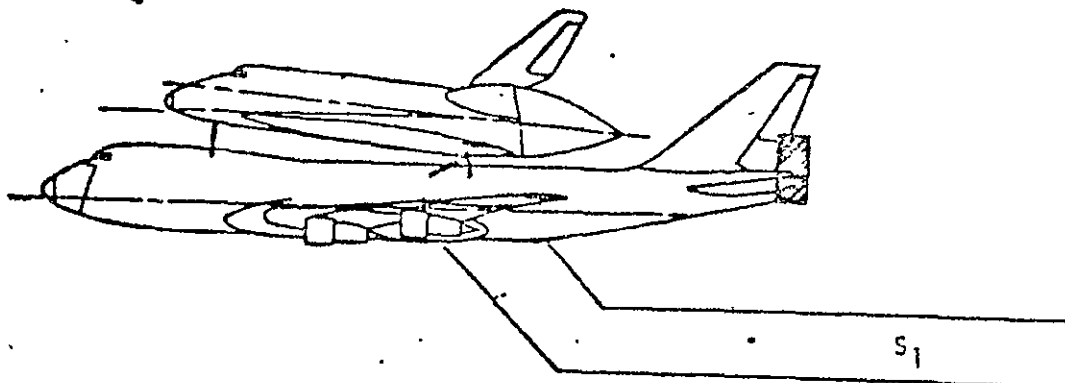
AT III.4 FERRY CONFIGURATION  
SAME AS AT III.3 EXCEPT  
L.H. SWAY BRACE REMOVED



h. AT<sub>III.3</sub> and AT<sub>III.4</sub> Orbiter Aft Attach Structure.

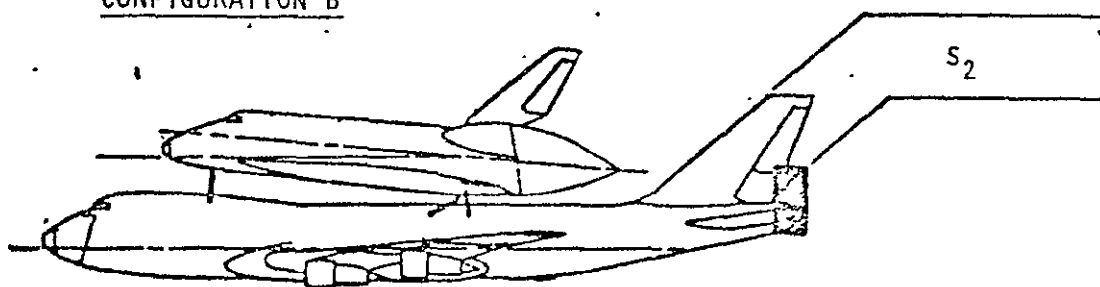
Figure 2. - (Continued).

CONFIGURATION A



Test support configuration for free air testing.

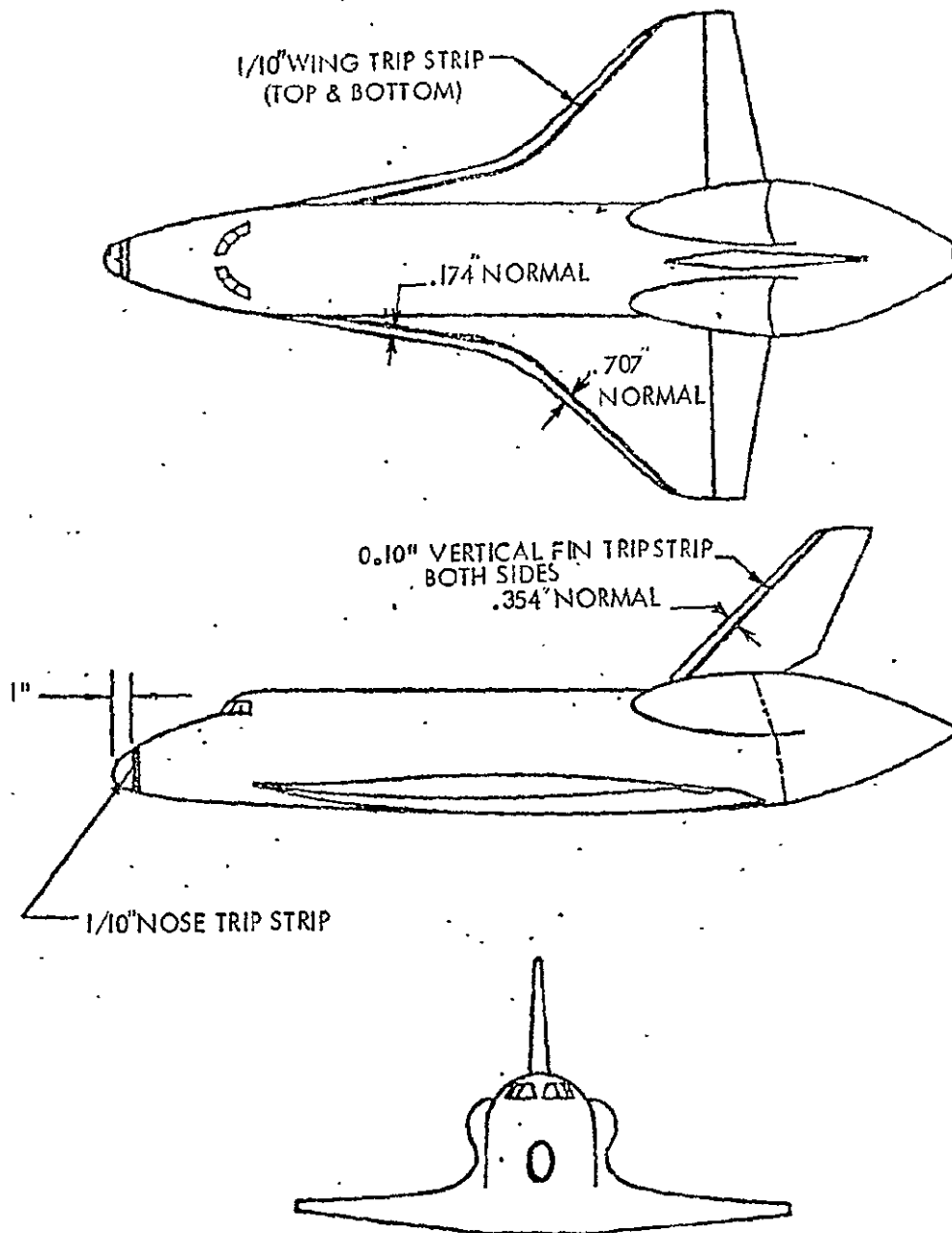
CONFIGURATION B



Test support configuration for ground effect testing.

i. Test Support Configurations.

Figure 2. - (Continued).



ALL TRIP STRIPS #80 GRIT,  
40 - 60 GRAINS PER INCH

j. Orbiter Trip Strip Definition.  
Figure 2. - (Continued).

### TRIP STRIP DEFINITION

747 and 747 CAM

#### WING

Wing upper and lower surface: 1.25 inches streamwise, 80 grit 40 to 60 grains/inch, 0.1 inch wide.

#### EMPENNAGE (All surfaces, top and bottom)

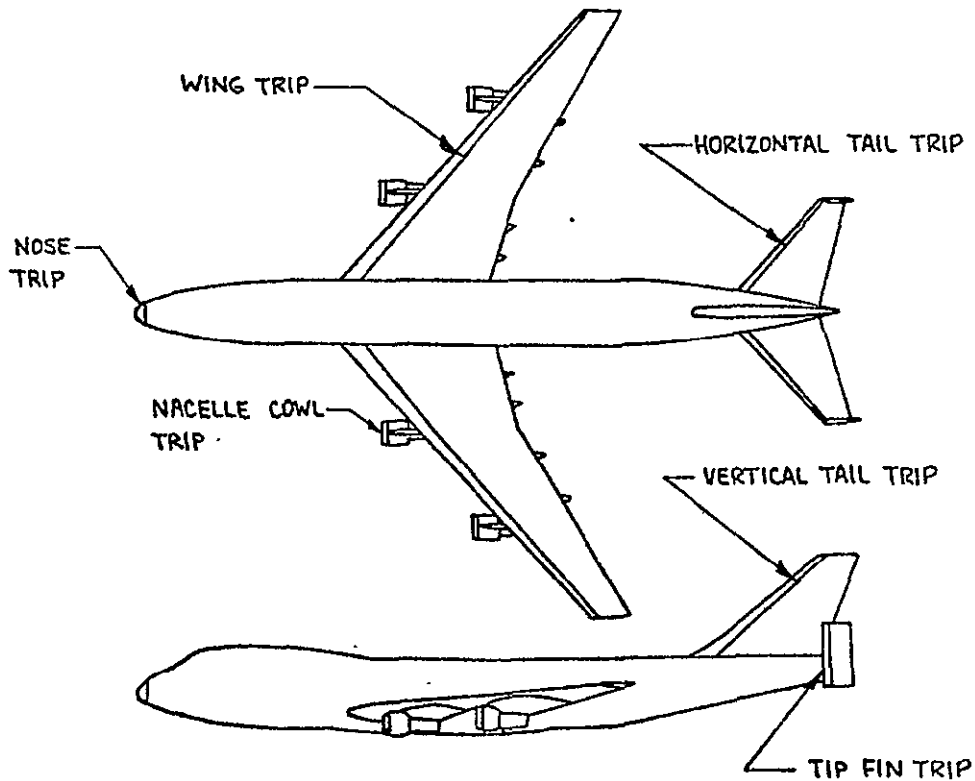
0.5 inch streamwise 0.1 inch wide, 80 grit, 40 to 60 grains/inch.

#### BODY NOSE

1.25 inch from L.E. 80 grit 0.1 inch wide, 40-60 grains/inch.

#### NACELLE

Fan cowl .5 inch from L.E. (inside and outside), 80 grit, 40-60 grains/inch, 0.10 inch wide. Primary, at the fan cowl exit plane, (outside surface only), 80 grit, 40-60 grains/inch, .10 inch wide.

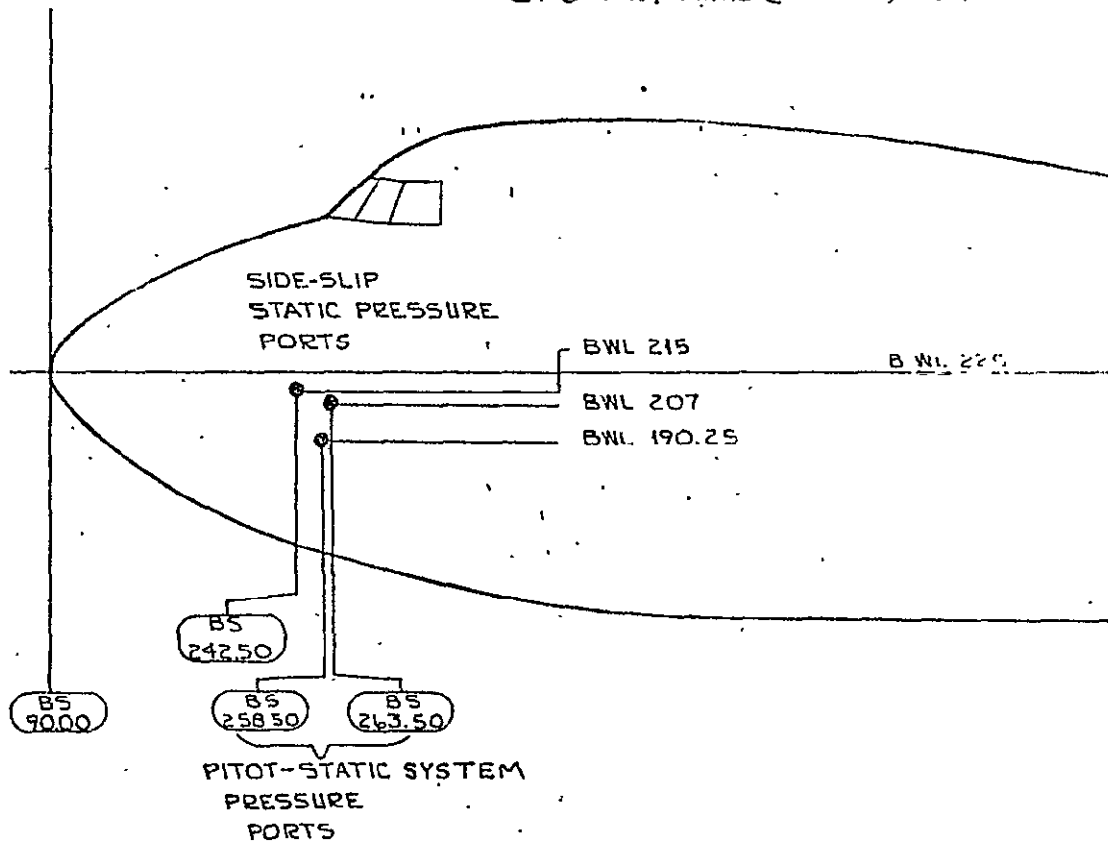


k. 747 CAM Trip Strip Definition.

Figure 2. - (Continued).

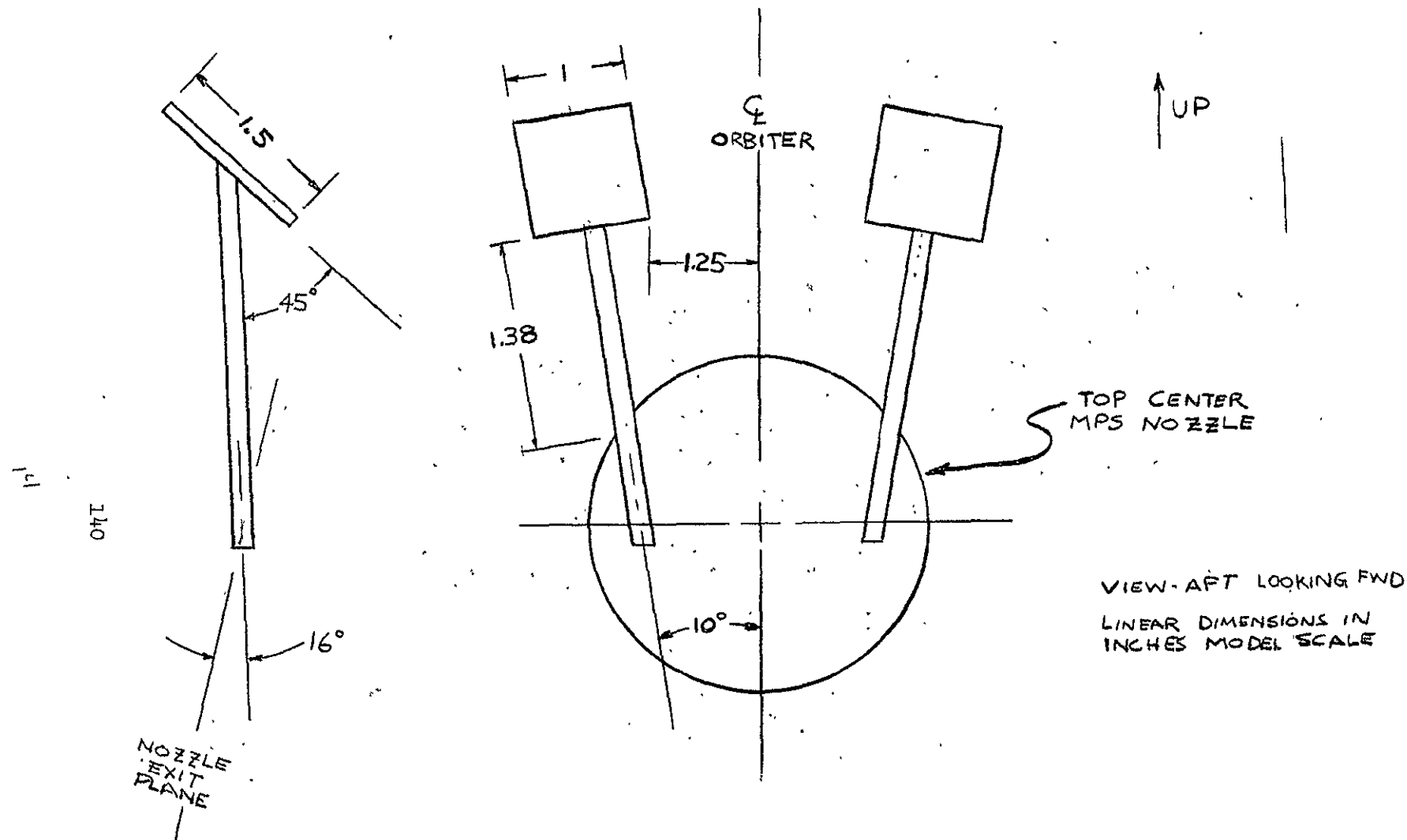
NOT TO SCALE

CP1 SIDE-SLIP (PORT SIDE) BWL 215 BS 242.50  
 CP2 PITOT-STATIC ( L ) BWL 207 BS 263.50  
 CP3 PITOT-STATIC ( L ) BWL 190.25 BS 258.50  
 CP4 SIDE-SLIP (STARBOARD SIDE) BWL 215 BS 242.50  
 CP5 PITOT-STATIC ( L ) BWL 207 BS 263.50  
 CP6 PITOT-STATIC ( L ) BWL 190.25 BS 258.50

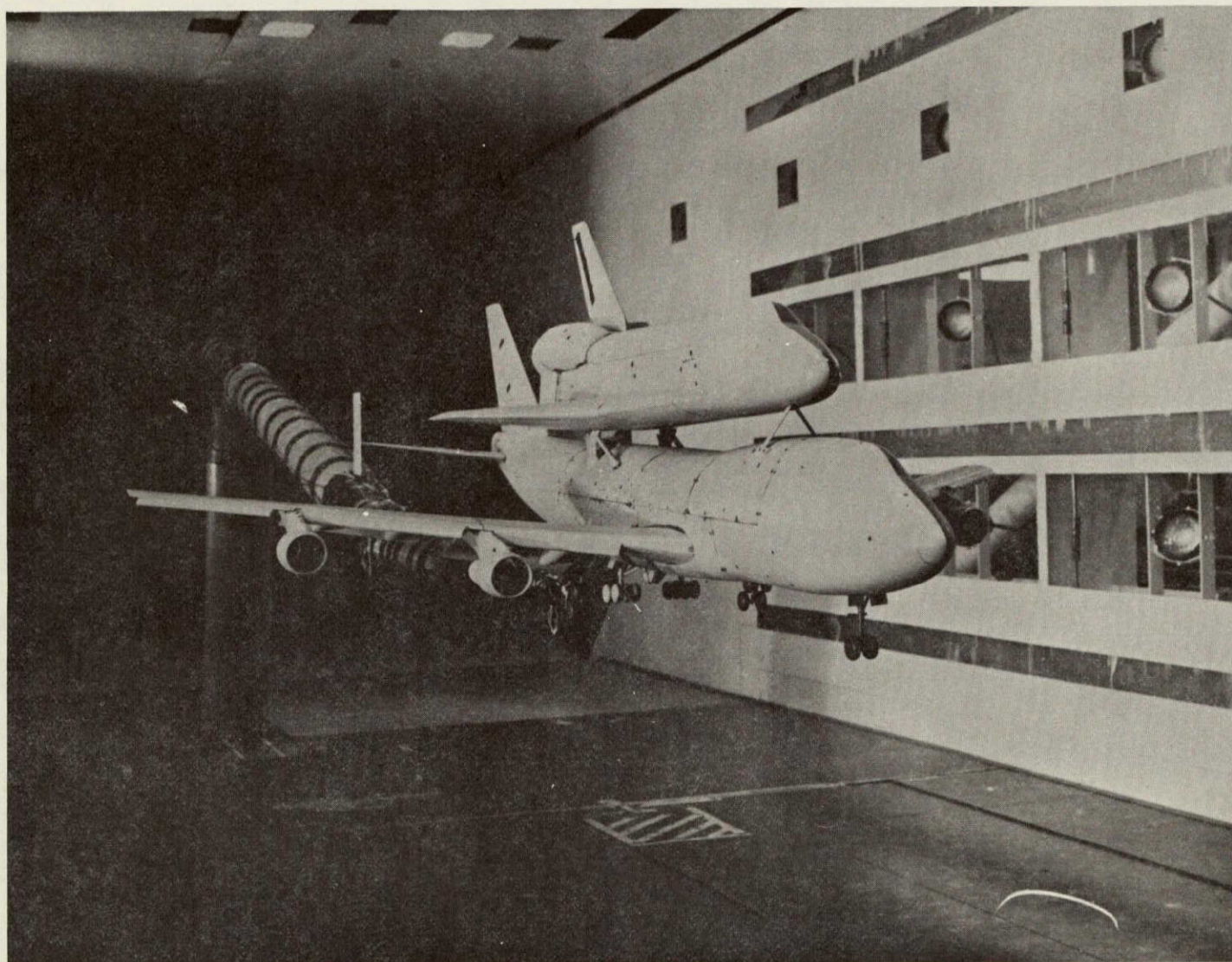


2. Static Pressure Port Locations on the Forebody of the 747 Model.

Figure 2. - (Continued).



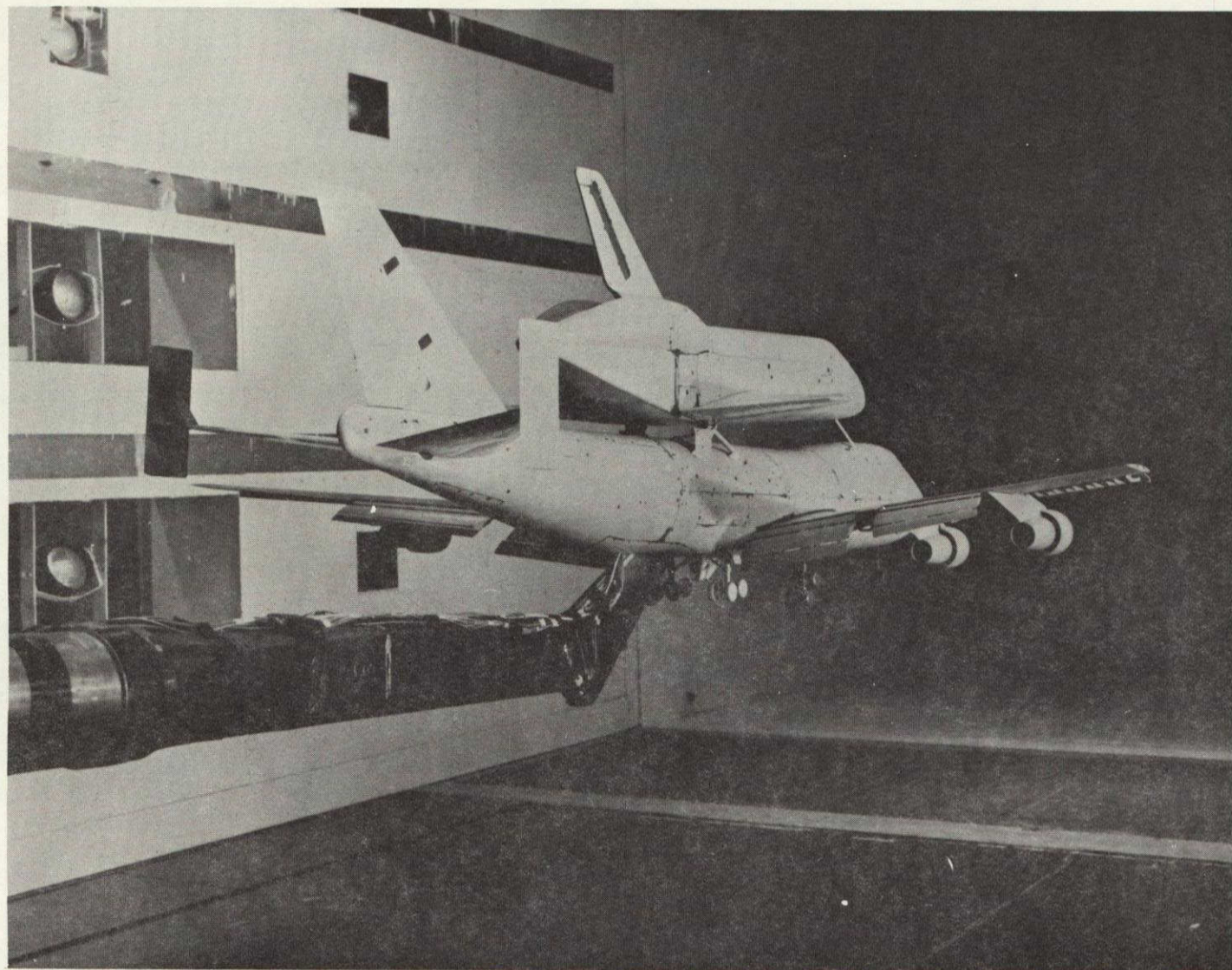
m. Sugar Scoops  
Figure 2. - (Concluded)



a. Front View of Ferry Configuration with  $S_1$  Swept-Blade Sting.

Figure 3. - Model Photographs.

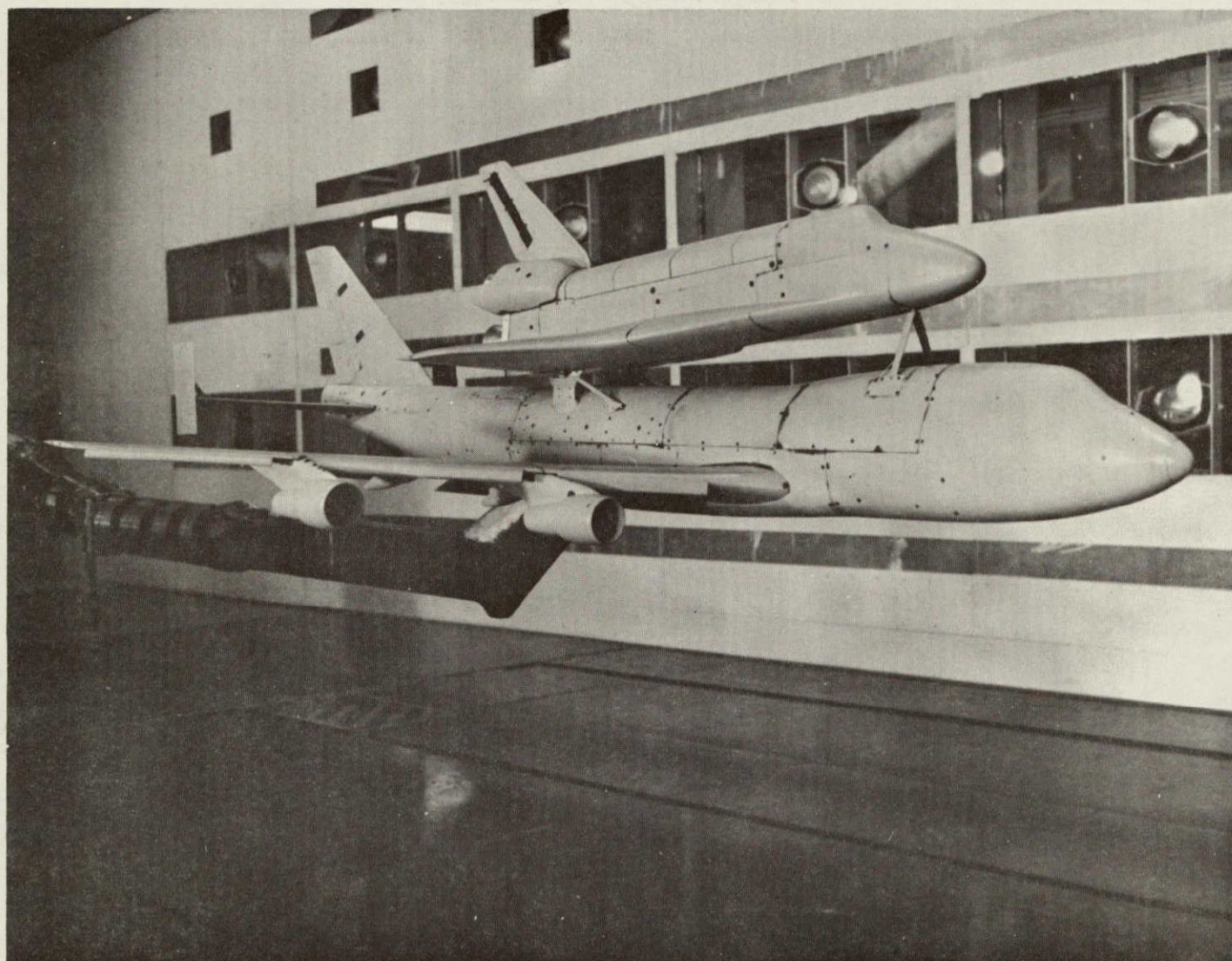




b. AFT View of Ferry Configuration with  $S_1$  Swept-Blade Sting.

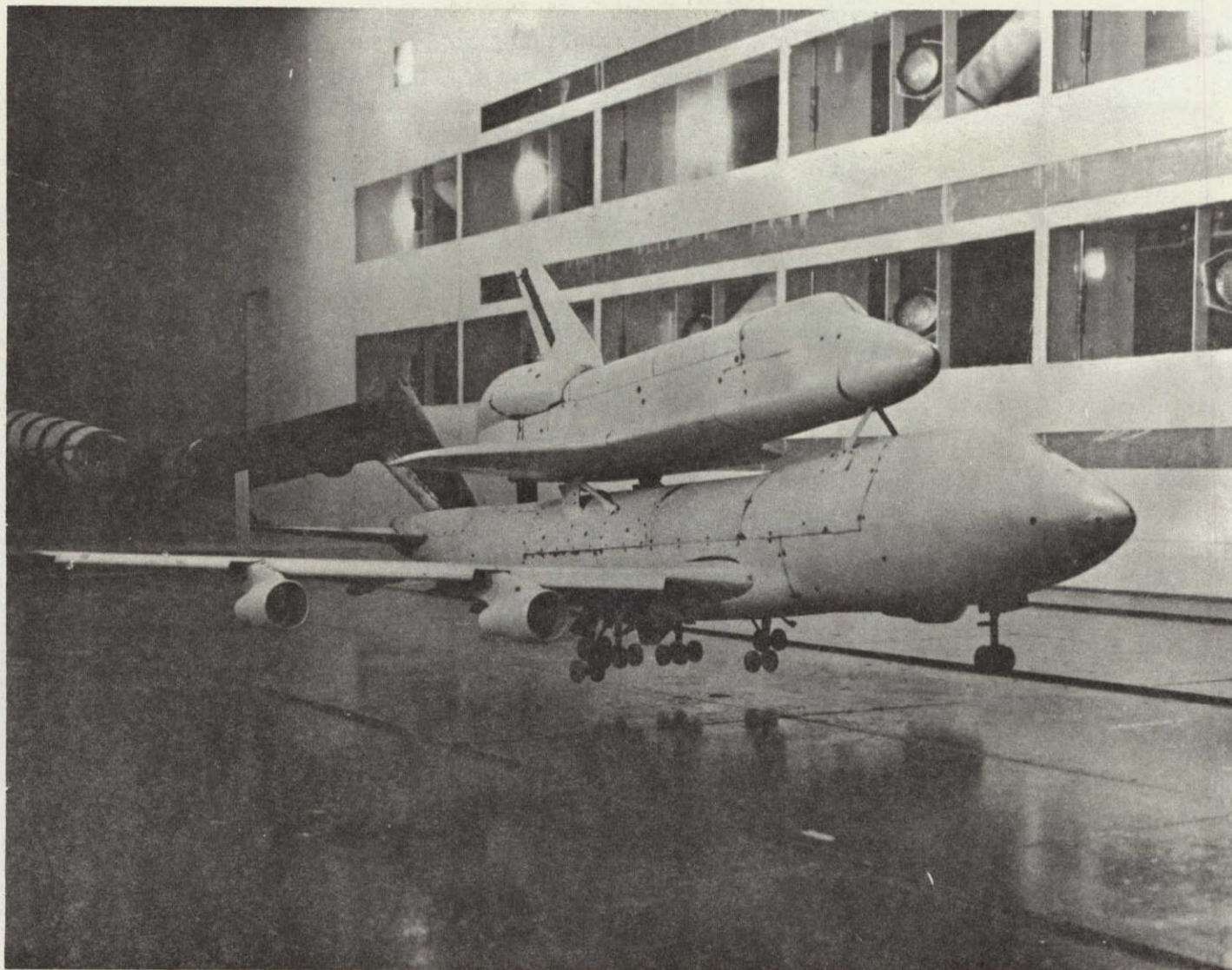
Figure 3. - (Continued).





c. Front View of ALT Configuration with  $S_1$  Swept-Blade Sting.  
Figure 3. - (Continued).

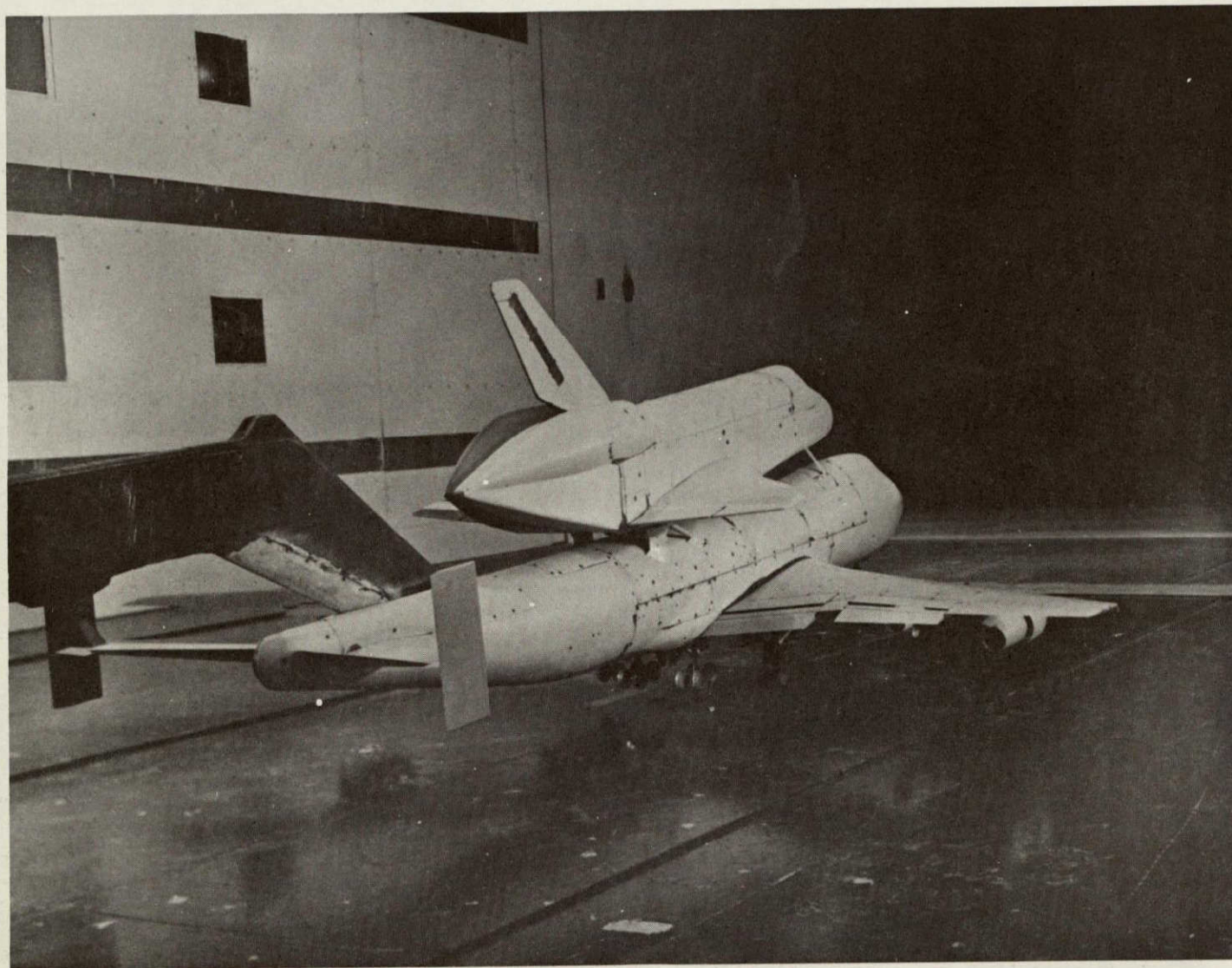




d. Front View of Ferry Configuration with  $S_2$  Swept-Blade Sting.

Figure 3. - (Continued).

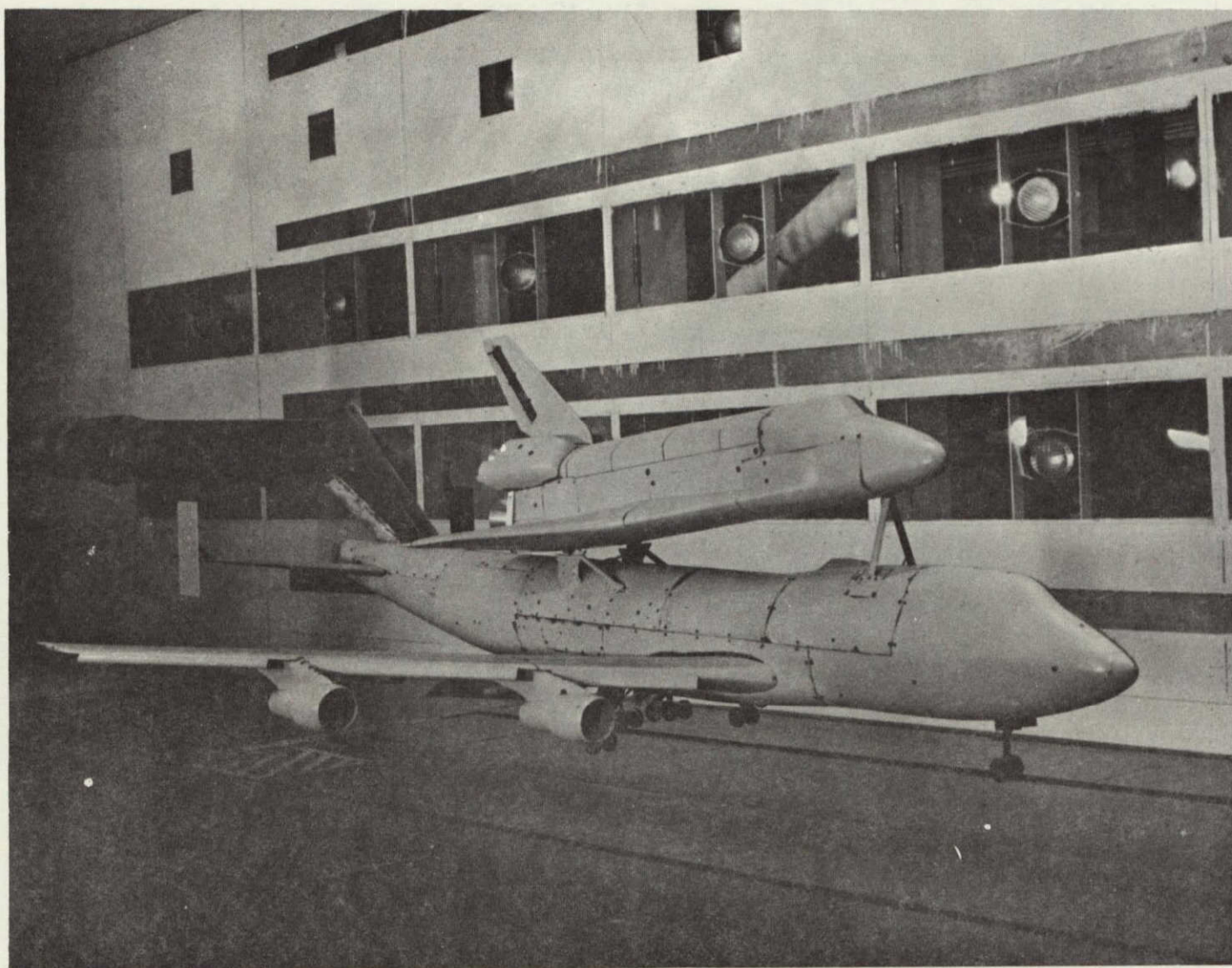




e. AFT View of Ferry Configuration with  $S_2$  Swept-Blade Sting.

Figure 3. - (Continued).

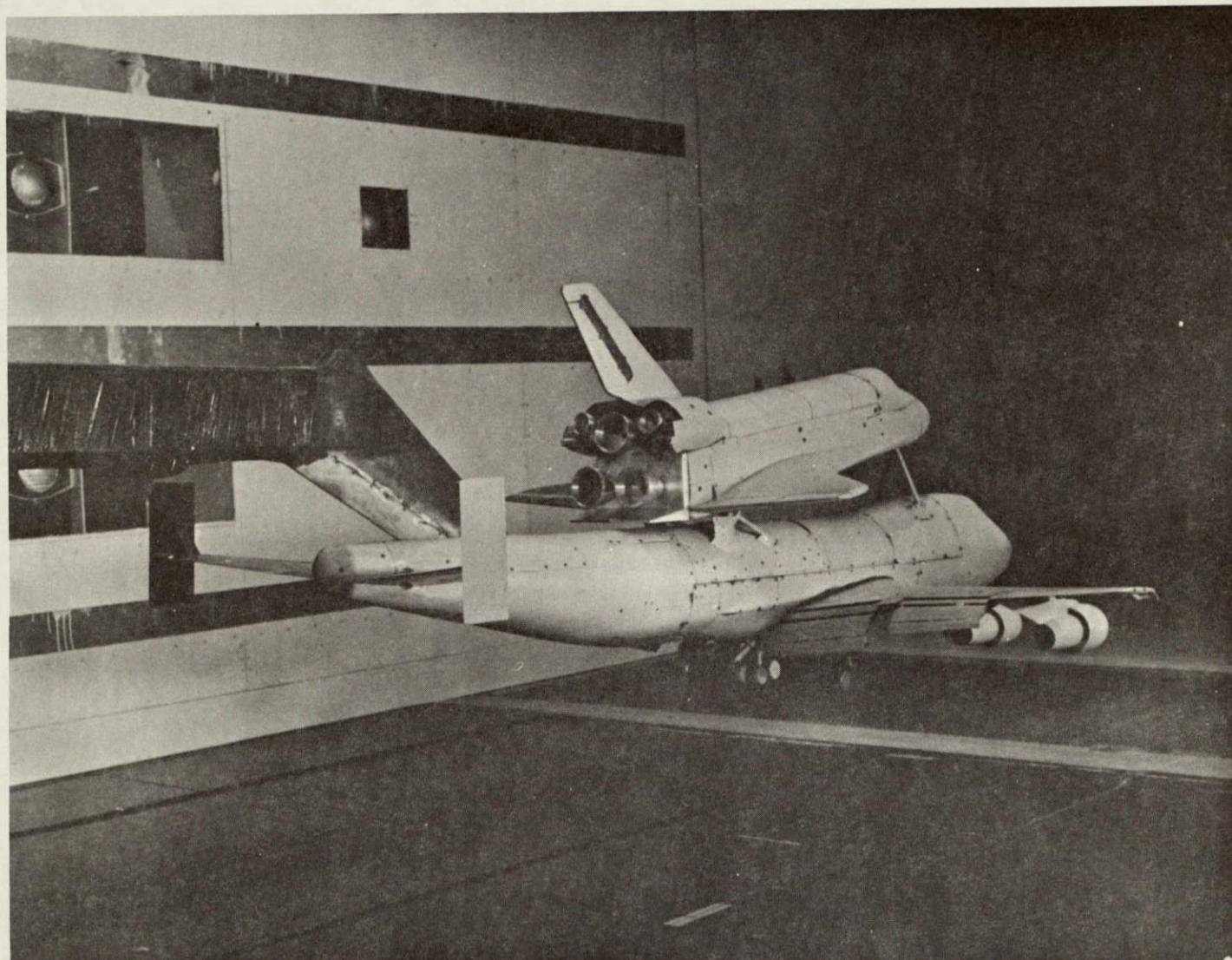




f. Front View of ALT Configuration with  $S_2$  Swept-Blade Sting.  
Figure 3. - (Continued).



(Reverse of this page is blank.)  
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g. AFT View of AIT Configuration with  $S_2$  Swept-Blade Sting.  
Figure 3. - (Concluded).

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION        | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF122) | ○      | (CA-8) K2V9.1.2TS6 FOTS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF123) | □      | (CA-8) K2V9.1.2TS6H15.6.1FOTS401 | .000   | -4.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF124) | ◇      | (CA-8) K2V9.1.2TS6H15.6.1FOTS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF125) | △      | (CA-8) K2V9.1.2TS6H15.6.1FOTS401 | .000   | .000   | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |                                  |        |        |         |      | YMRP                  | .0000     | IN.Y0  |
|          |        |                                  |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                  |        |        |         |      | SCALE                 | .0405     |        |

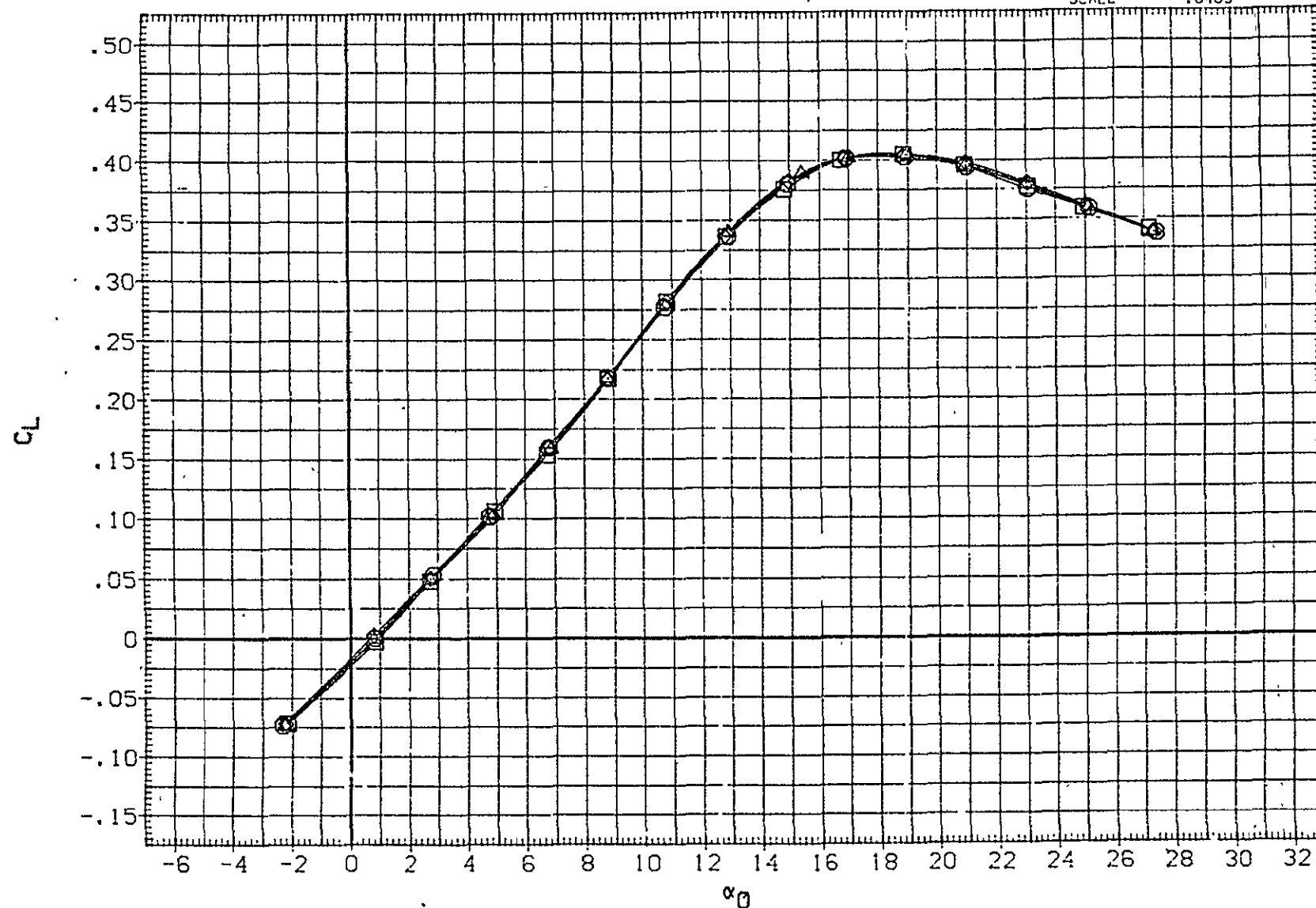


FIG 223 FERRY CONFIG. STABILIZER EFFECTIVENESS, FLAPS UP, IORB=3. TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION        | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF122) | ○      | (CA-8) K2V9.1.2TS6 FOTS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF123) | □      | (CA-8) K2V9.1.2TS6H15.6.1FOTS401 | .000   | -4.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF124) | ◇      | (CA-8) K2V9.1.2TS6H15.6.1FOTS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF125) | △      | (CA-8) K2V9.1.2TS6H15.6.1FOTS401 | .000   | .000   | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |                                  |        |        |         |      | YMRP                  | .0000     | IN.Y0  |
|          |        |                                  |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                  |        |        |         |      | SCALE                 | .0405     |        |

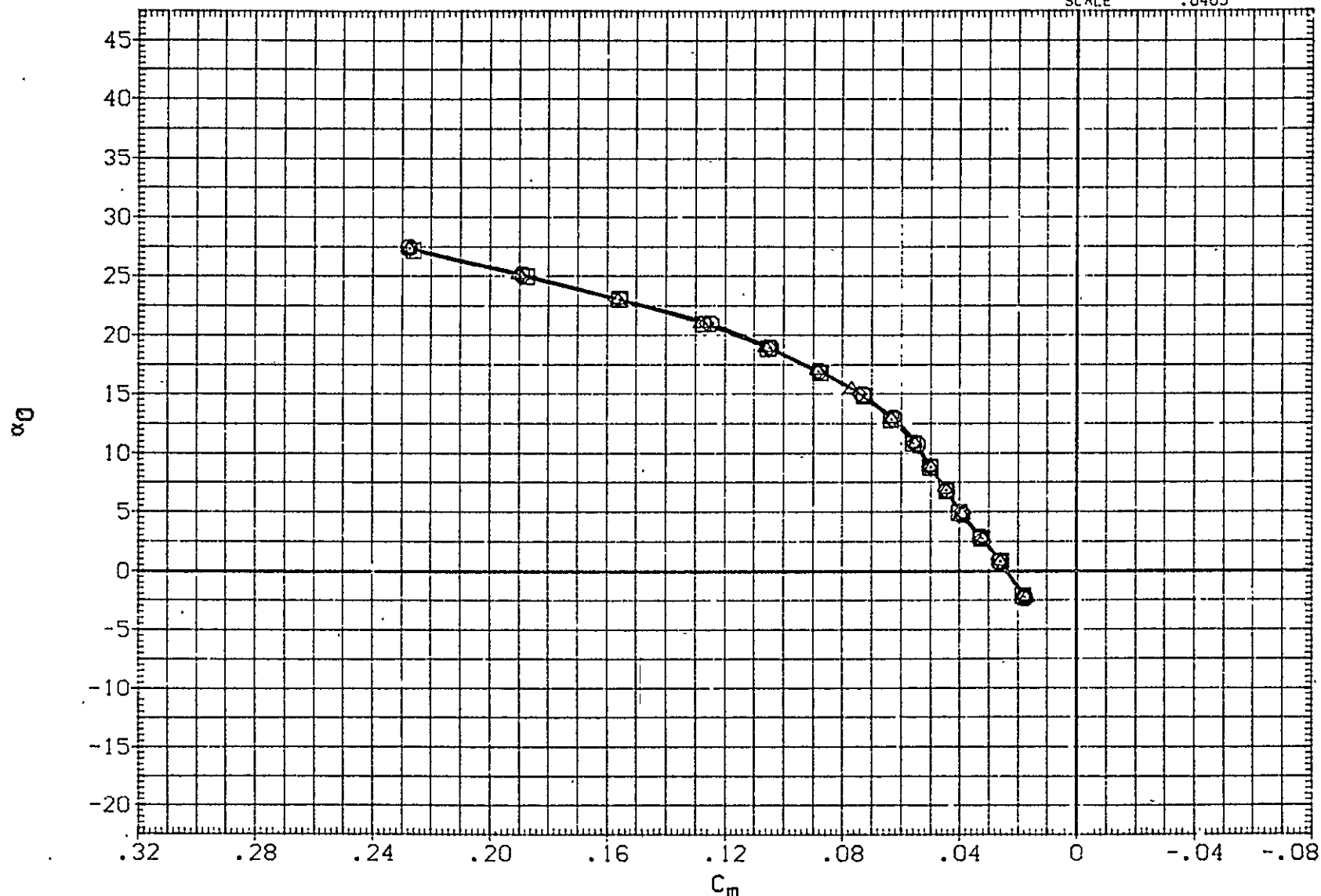


FIG 223 FERRY CONFIG. STABILIZER EFFECTIVENESS, FLAPS UP, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION        | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF122) | ○      | (CA-8) K2V9.1.2TS6 FOTS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF123) | □      | (CA-8) K2V9.1.2TS6H15.6.1FOTS401 | .000   | -4.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF124) | ◇      | (CA-8) K2V9.1.2TS6H15.6.1FOTS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF125) | △      | (CA-8) K2V9.1.2TS6H15.6.1FOTS401 | .000   | .000   | -11.700 | .000 | XMRF                  | 1109.0000 | IN.X0  |
|          |        |                                  |        |        |         |      | YMRF                  | .0000     | IN.Y0  |
|          |        |                                  |        |        |         |      | ZMRF                  | 375.0000  | IN.Z0  |
|          |        |                                  |        |        |         |      | SCALE                 | .0405     |        |



FIG 223 FERRY CONFIG. STABILIZER EFFECTIVENESS. FLAPS UP, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION        | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF122) | ○      | (CA-8) K2V9.1.2TS6 FOTS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF123) | □      | (CA-8) K2V9.1.2TS6H15.6.1FOTS401 | .000   | -4.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF124) | ◇      | (CA-8) K2V9.1.2TS6H15.6.1FOTS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF125) | △      | (CA-8) K2V9.1.2TS6H15.6.1FOTS401 | .000   | .000   | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |                                  |        |        |         |      | YMRP                  | .0000     | IN.Y0  |
|          |        |                                  |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                  |        |        |         |      | SCALE                 | .0405     |        |

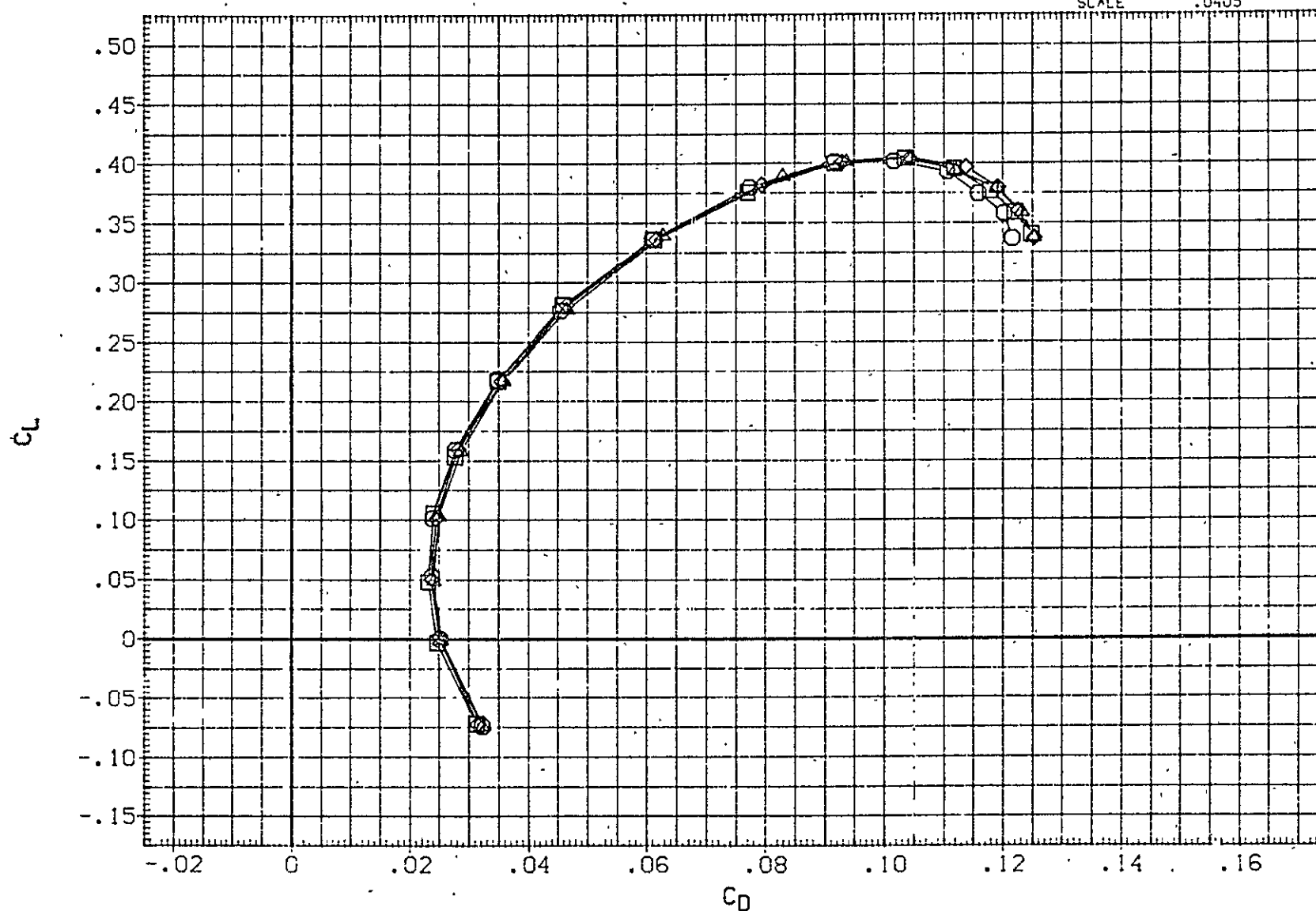


FIG 223 FERRY CONFIG. STABILIZER EFFECTIVENESS, FLAPS UP, 10RB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF115) | ○      | (CA-8) K2V9.1.2TS5F30G5.3.5TS401  |        |        | -11.700 | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF116) | □      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000   | 3.000  | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF117) | ◇      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000   | .000   | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF118) | △      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000   | -4.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF119) | ▽      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000   | -2.000 | -11.700 | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |                                   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                   |        |        |         |      | SCALE                 | .0405     |        |

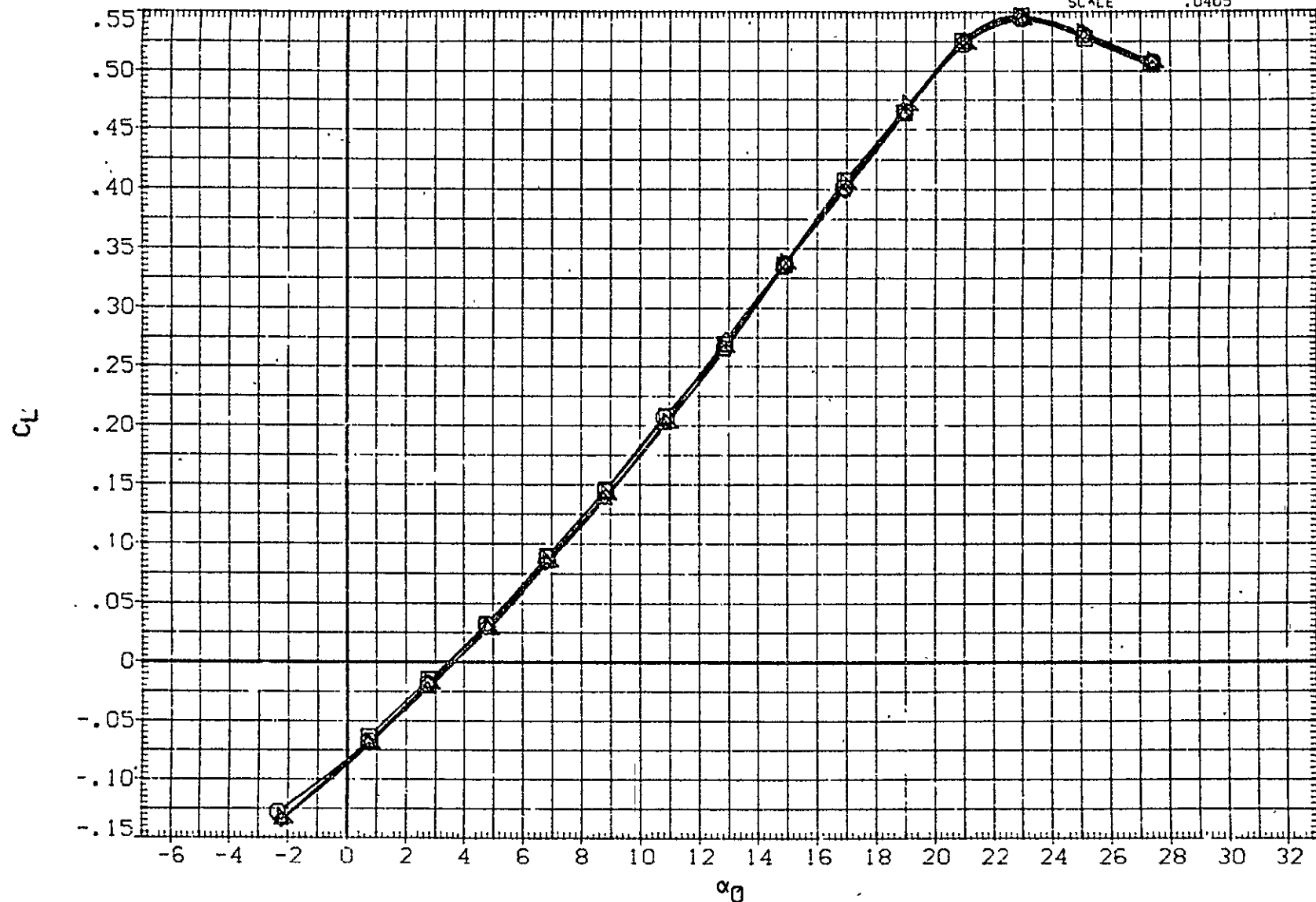


FIG 224 FERRY CONFIG. STABILIZER EFFECTIVENESS, FLAPS 10, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

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REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR.

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF115) | ○      | (CA-8) K2V9.1.2TS5F30G5.3.5TS401  |        |        | -11.700 | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF116) | □      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000   | 3.000  | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF117) | ◇      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000   | .000   | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF118) | △      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000   | -4.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF119) | ▽      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000   | -2.000 | -11.700 | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |                                   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                   |        |        |         |      | SCALE                 | .0405     |        |

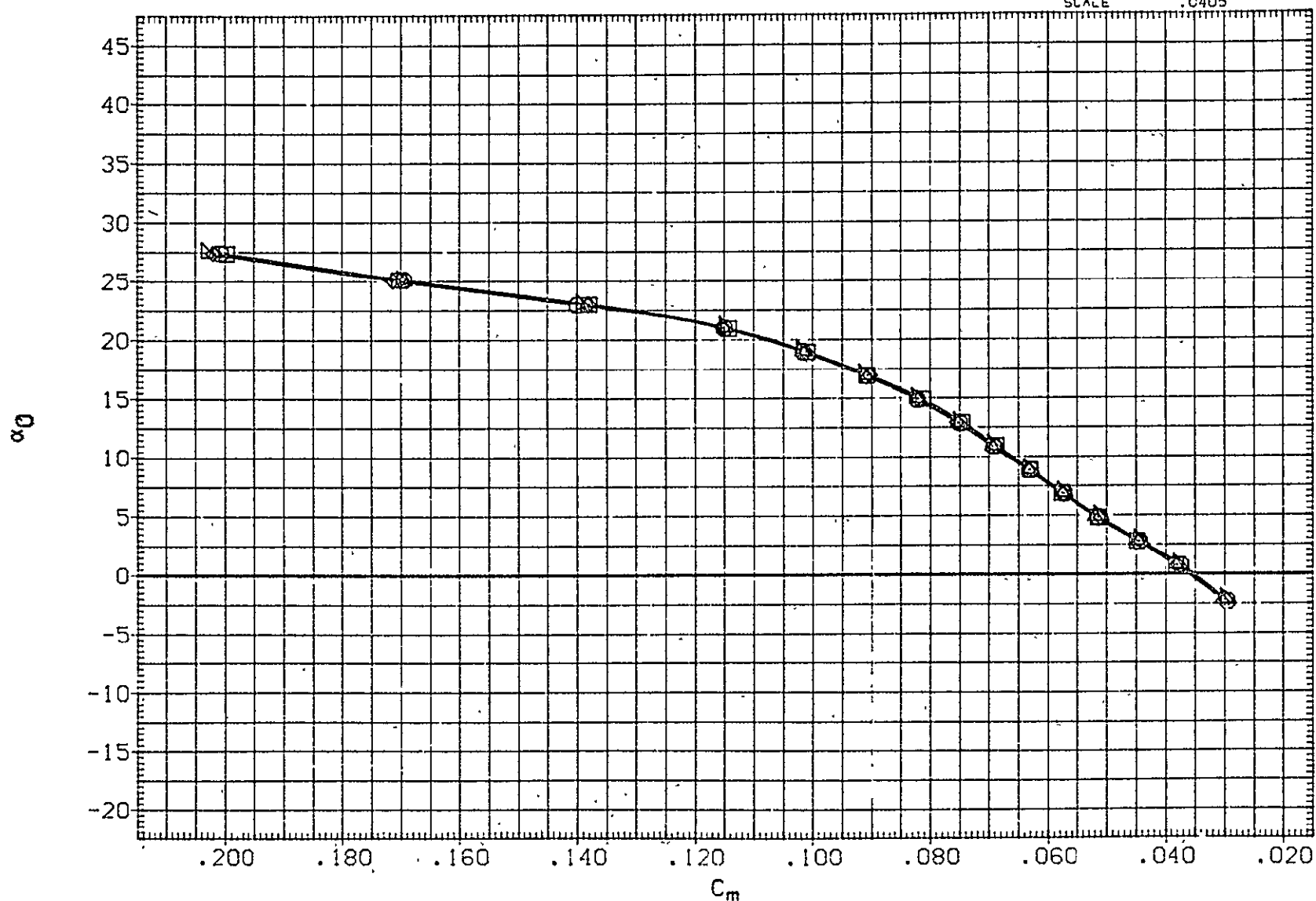


FIG 224 FERRY CONFIG. STABILIZER EFFECTIVENESS, FLAPS 10, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF115) | ○      | (CA-8) K2V9.1.2TS5F30G5.3.5TS401  |        |        | -11.700 | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF116) | □      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000   | 3.000  | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF117) | ◇      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000   | .000   | -11.700 | .000 | BREF                  | 936.6900  | IN.    |
| (TJF118) | △      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000   | -4.000 | -11.700 | .000 | XM RP                 | 1109.0000 | IN.X0  |
| (TJF119) | ▽      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000   | -2.000 | -11.700 | .000 | YM RP                 | .0000     | IN.Y0  |
|          |        |                                   |        |        |         |      | ZM RP                 | 375.0000  | IN.Z0  |
|          |        |                                   |        |        |         |      | SCALE                 | .0405     |        |

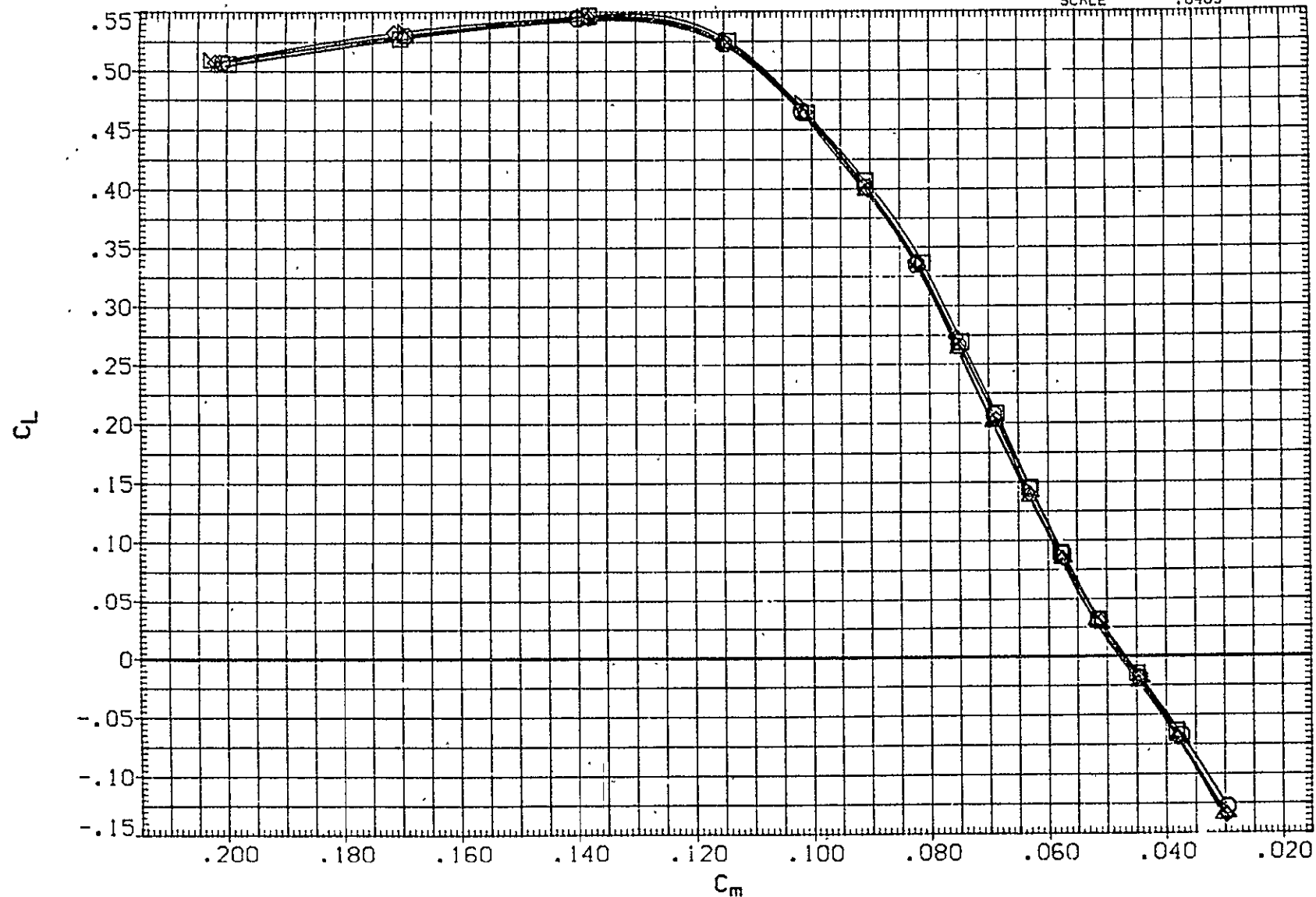


FIG 224 FERRY CONFIG. STABILIZER EFFECTIVENESS, FLAPS 10, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

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| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF115) | ○      | (CA-8) K2V9.1.2TS5F30G5.3.5TS401  |        |        | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF116) | □      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000   | 3.000  | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF117) | ×      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000   | .000   | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF118) | △      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000   | -4.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF119) | ▽      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000   | -2.000 | -11.700 | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |                                   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                   |        |        |         |      | SCALE                 | .0405     |        |

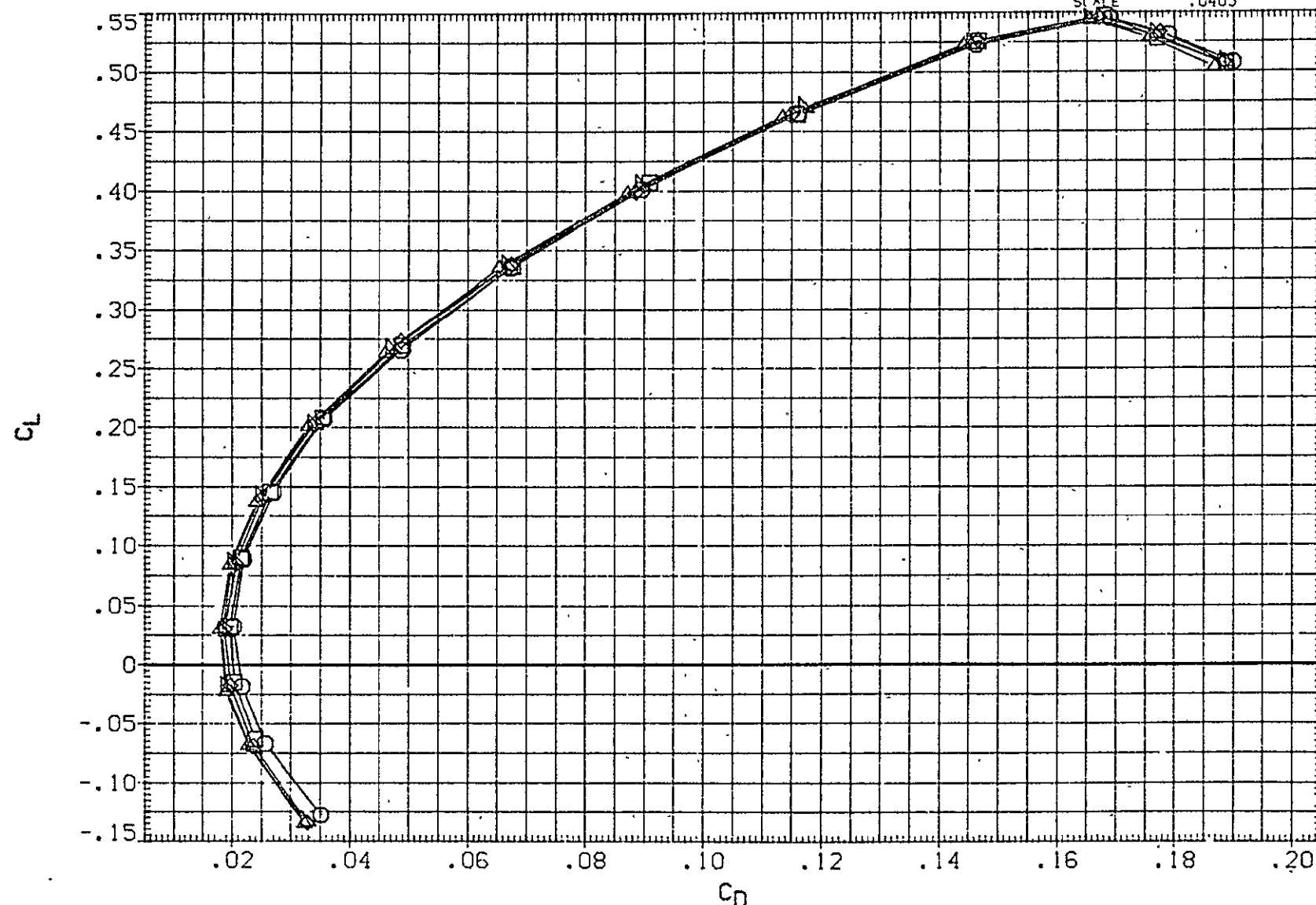


FIG 224 FERRY CONFIG. STABILIZER EFFECTIVENESS. FLAPS 10. IORB=3. TC ON. ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF097) | ○      | (CA-8) K2V9.1.2TS5 F20TS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF094) | □      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 | .000   | -2.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF095) | ◇      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 | .000   | -4.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF096) | △      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 | .000   | -6.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN. XO |
|          |        |                                   |        |        |         |      | YMRP                  | .0000     | IN. YO |
|          |        |                                   |        |        |         |      | ZMRP                  | 375.0000  | IN. ZO |
|          |        |                                   |        |        |         |      | SCALE                 | .0405     |        |

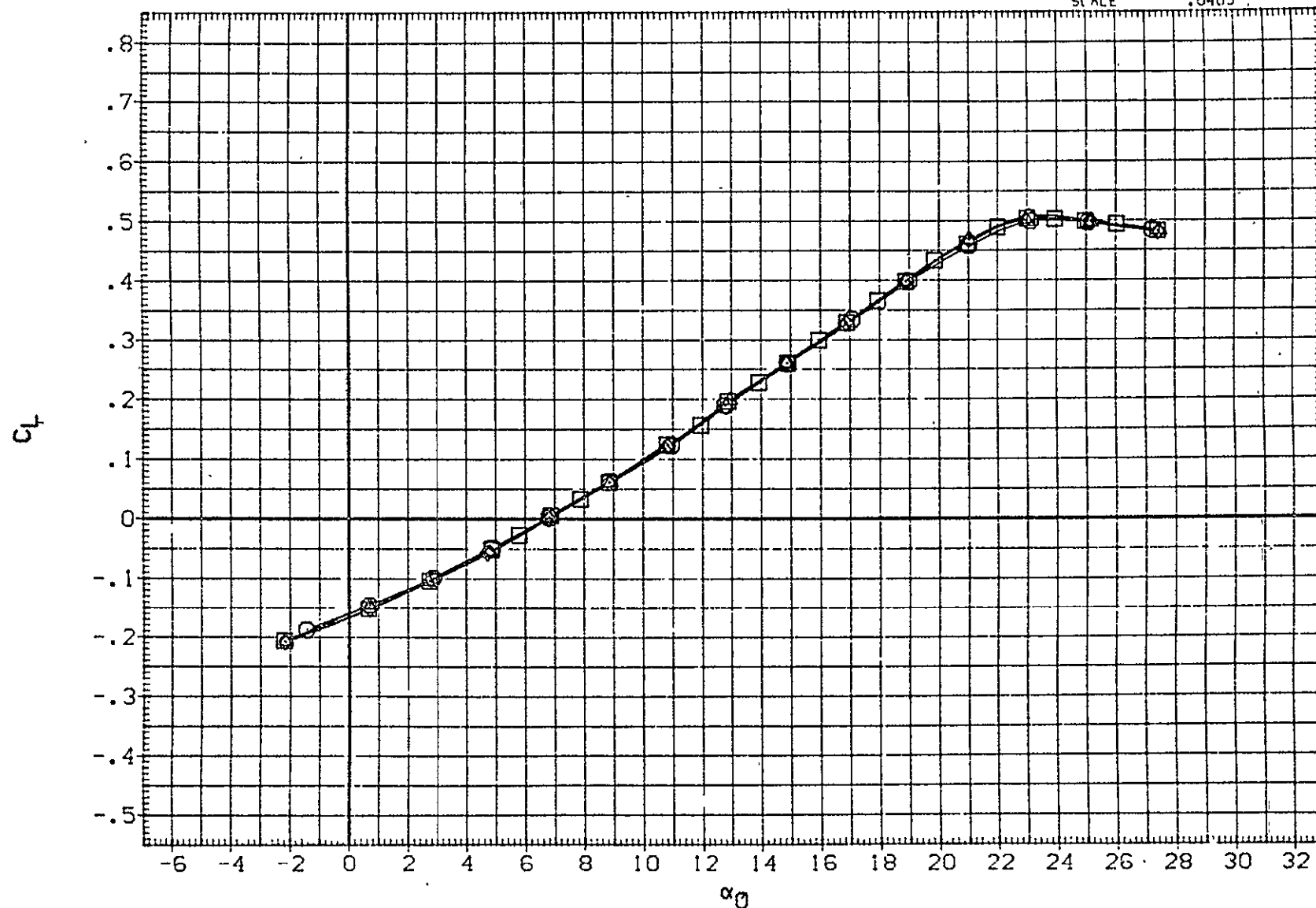


FIG 225 FERRY CONFIG. STABILIZER EFFECTIVENESS, FLAPS 20, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF097) | ○      | (CA-8) K2V9.1.2TS5 F20TS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF094) | □      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 | .000   | -2.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF095) | ◇      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 | .000   | -4.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF096) | △      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 | .000   | -6.000 | -11.700 | .000 | XMPP                  | 1109.0000 | IN.X0  |
|          |        |                                   |        |        |         |      | YMRP                  | .0000     | IN.Y0  |
|          |        |                                   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                   |        |        |         |      | SCALE                 | .0405     |        |

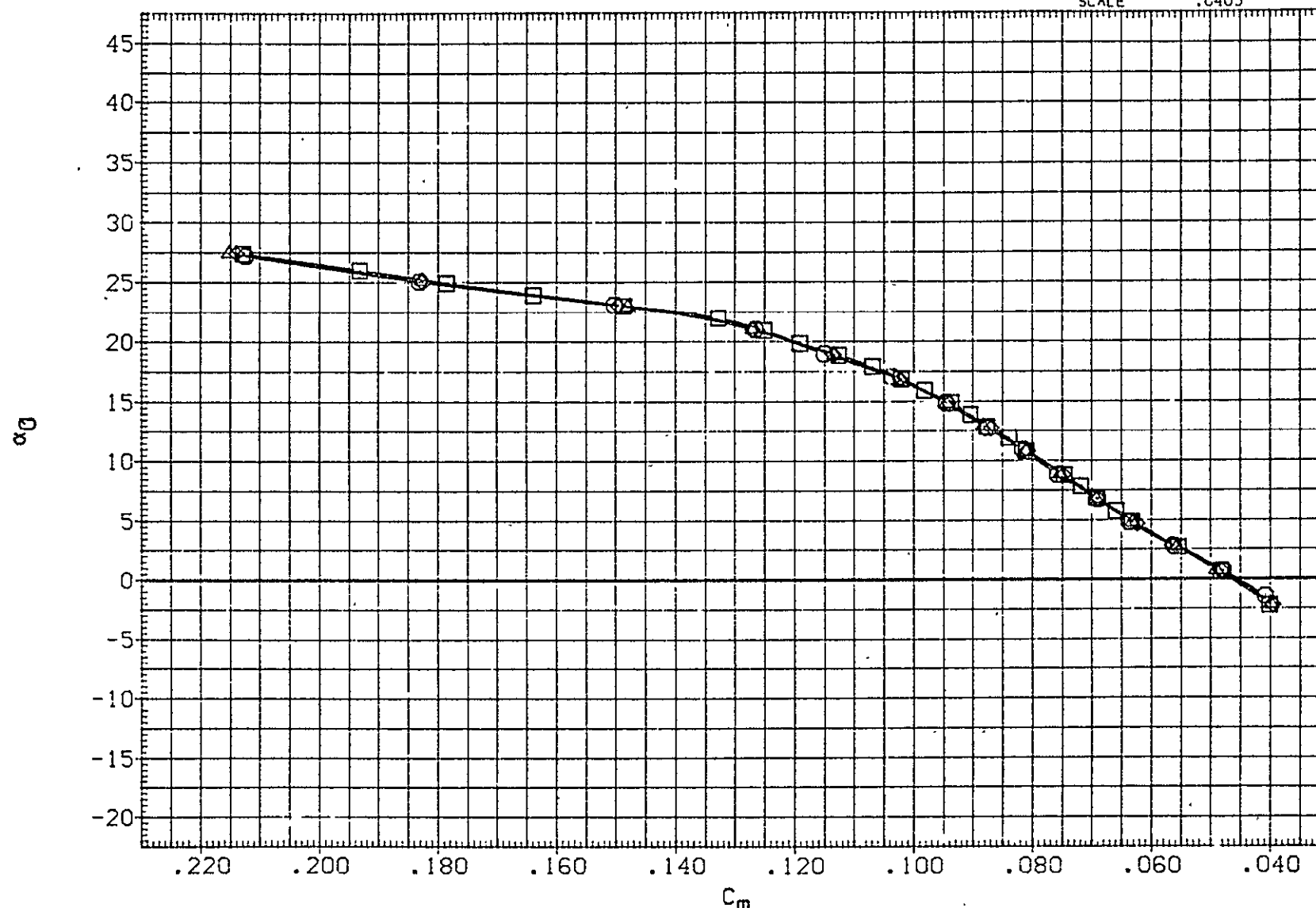


FIG 225 FERRY CONFIG. STABILIZER EFFECTIVENESS, FLAPS 20, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BCFLAP  | BETA | REFERENCE INFORMATION |                  |
|----------|--------|-----------------------------------|--------|--------|---------|------|-----------------------|------------------|
| (TJF097) | ○      | (CA-8) K2V9.1.2TS5 F20TS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 SQ.FT. |
| (TJF094) | □      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 | .000   | -2.000 | -11.700 | .000 | LREF                  | 474.8100 IN.     |
| (TJF095) | ◇      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 | .000   | -4.000 | -11.700 | .000 | BREF                  | 936.6800 IN.     |
| (TJF096) | △      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 | .000   | -6.000 | -11.700 | .000 | XMRP                  | 1109.0000 IN. X0 |
|          |        |                                   |        |        |         |      | YMRP                  | .0000 IN. Y0     |
|          |        |                                   |        |        |         |      | ZMRP                  | 375.0000 IN. Z0  |
|          |        |                                   |        |        |         |      | SCALE                 | .0405            |

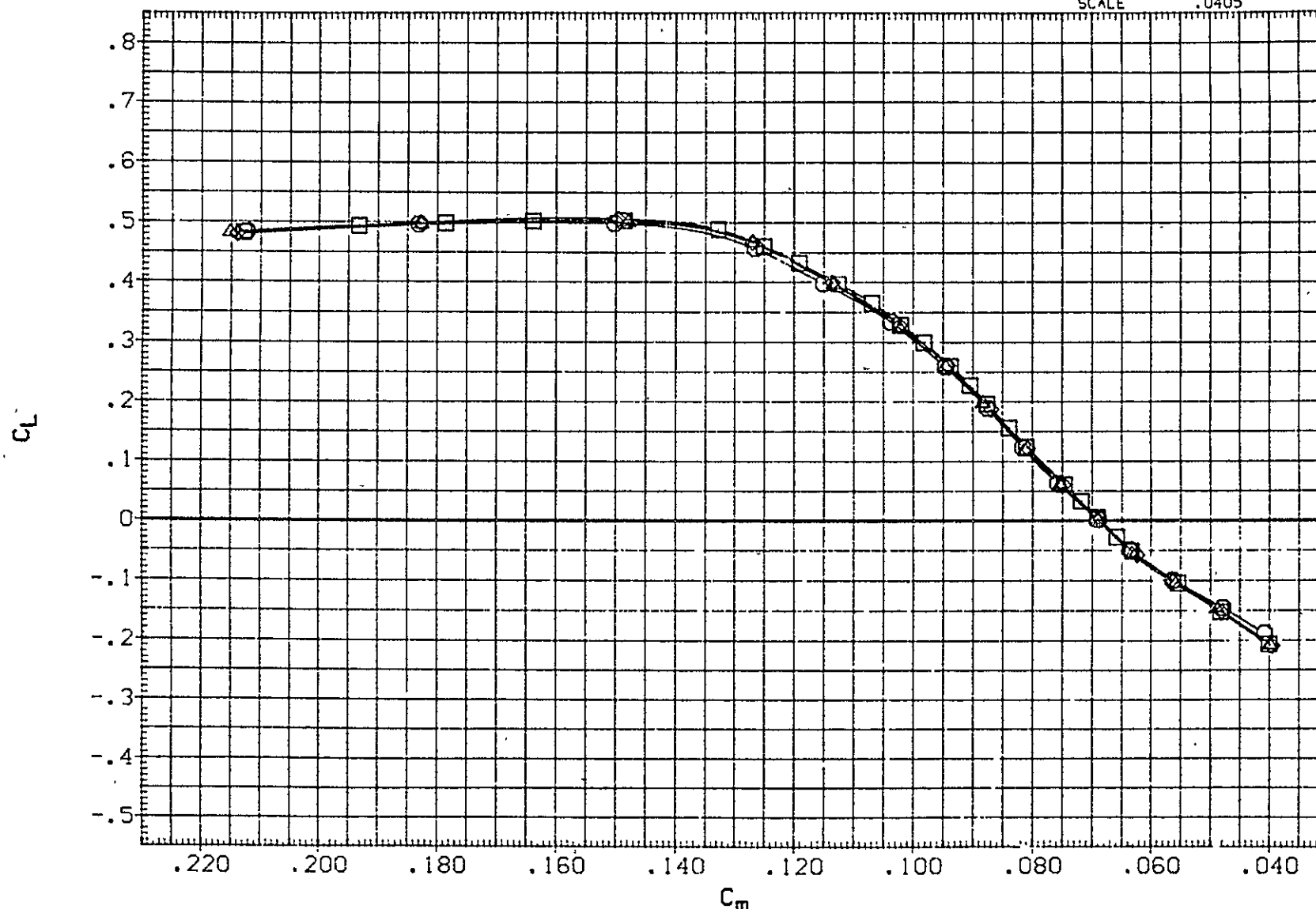


FIG 225 FERRY CONFIG. STABILIZER EFFECTIVENESS, FLAPS 20, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH. = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF097) | ○      | (CA-8) K2V9.1.2TS5 F20TS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF094) | □      | (CA-8) K2V9.1.2TSSH15.6.1F20TS401 | .000   | -2.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF095) | ◇      | (CA-8) K2V9.1.2TSSH15.6.1F20TS401 | .000   | -4.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF096) | △      | (CA-8) K2V9.1.2TSSH15.6.1F20TS401 | .000   | -6.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN. X0 |
|          |        |                                   |        |        |         |      | YMRP                  | .0000     | IN. Y0 |
|          |        |                                   |        |        |         |      | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                   |        |        |         |      | SCALE                 | .0405     |        |

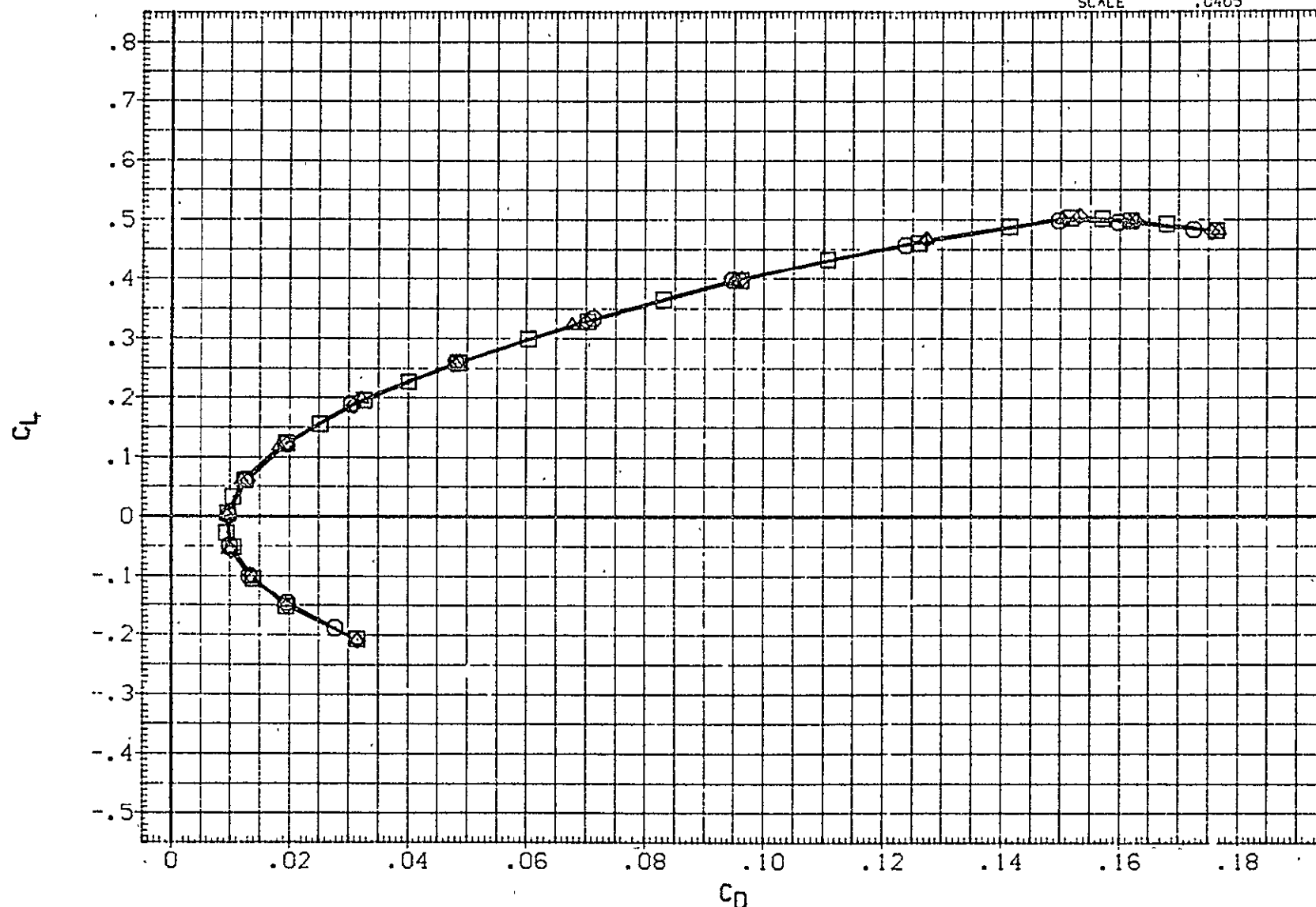


FIG 225 FERRY CONFIG. STABILIZER EFFECTIVENESS. FLAPS 20, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF043) | ○      | (CA-8) K2V9.1.2TS5F30G5.3.5TS401        |        |        | -11.700 | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF036) | □      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | .000   | -6.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF037) | ◇      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | .000   | -4.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF038) | △      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | .000   | -2.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF039) | ▽      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | 17.000 | -4.000 | -11.700 | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |        |        |         |      | SCALE                 | .0405     |        |

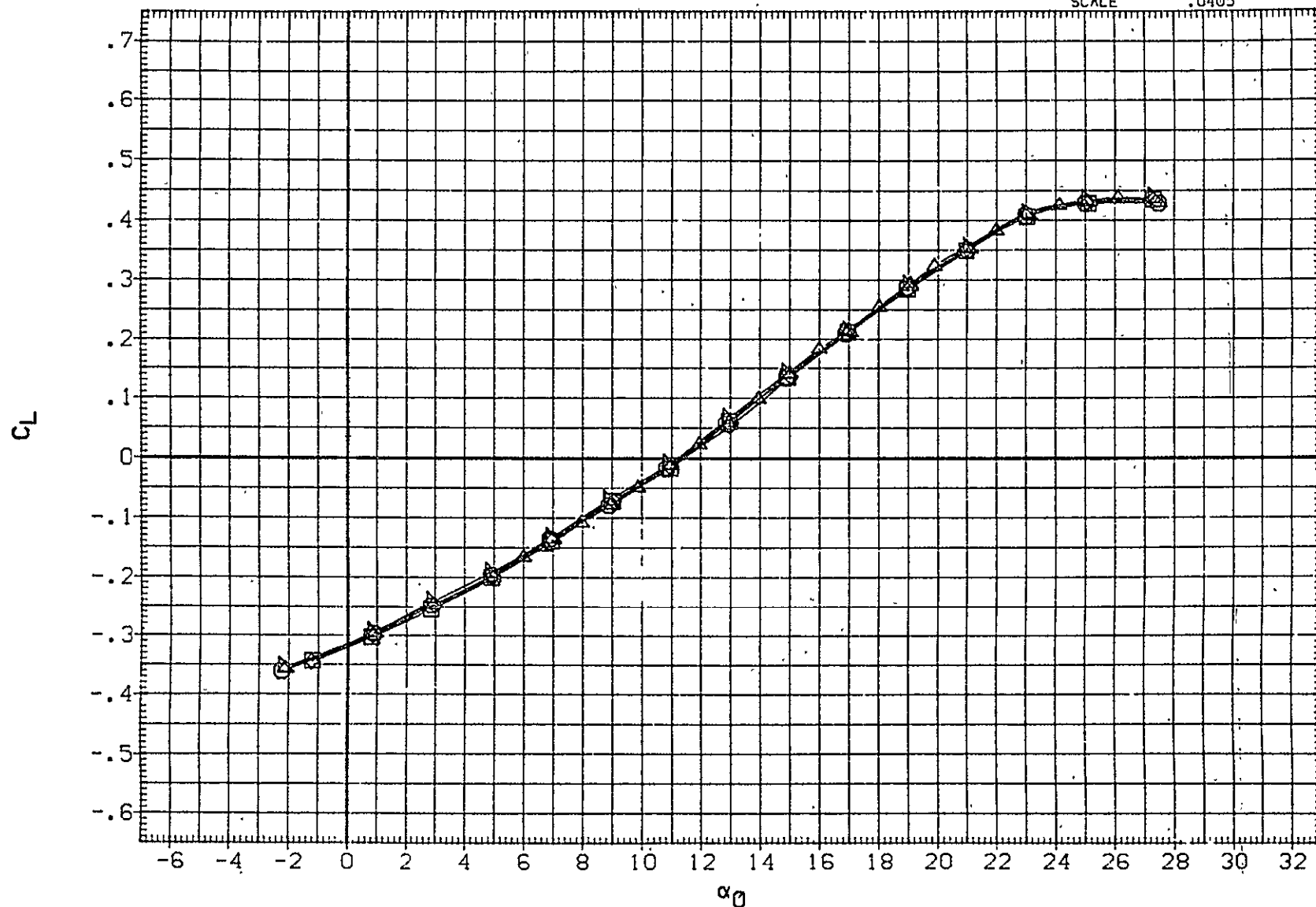


FIG 226 FERRY CONFIG. STABILIZER EFFECTIVENESS, FLAPS 30, 10RB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP  | BFTA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF043) | ○      | (CA-8) K2V9.1.2TS5F30G5.3.5TS401        |        |        | -11.700 | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF036) | □      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | .000   | -6.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF037) | ◇      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | .000   | -4.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF038) | △      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | .000   | -2.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF039) | ▽      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | 17.000 | -4.000 | -11.700 | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |        |        |         |      | SCALE                 | .0405     |        |

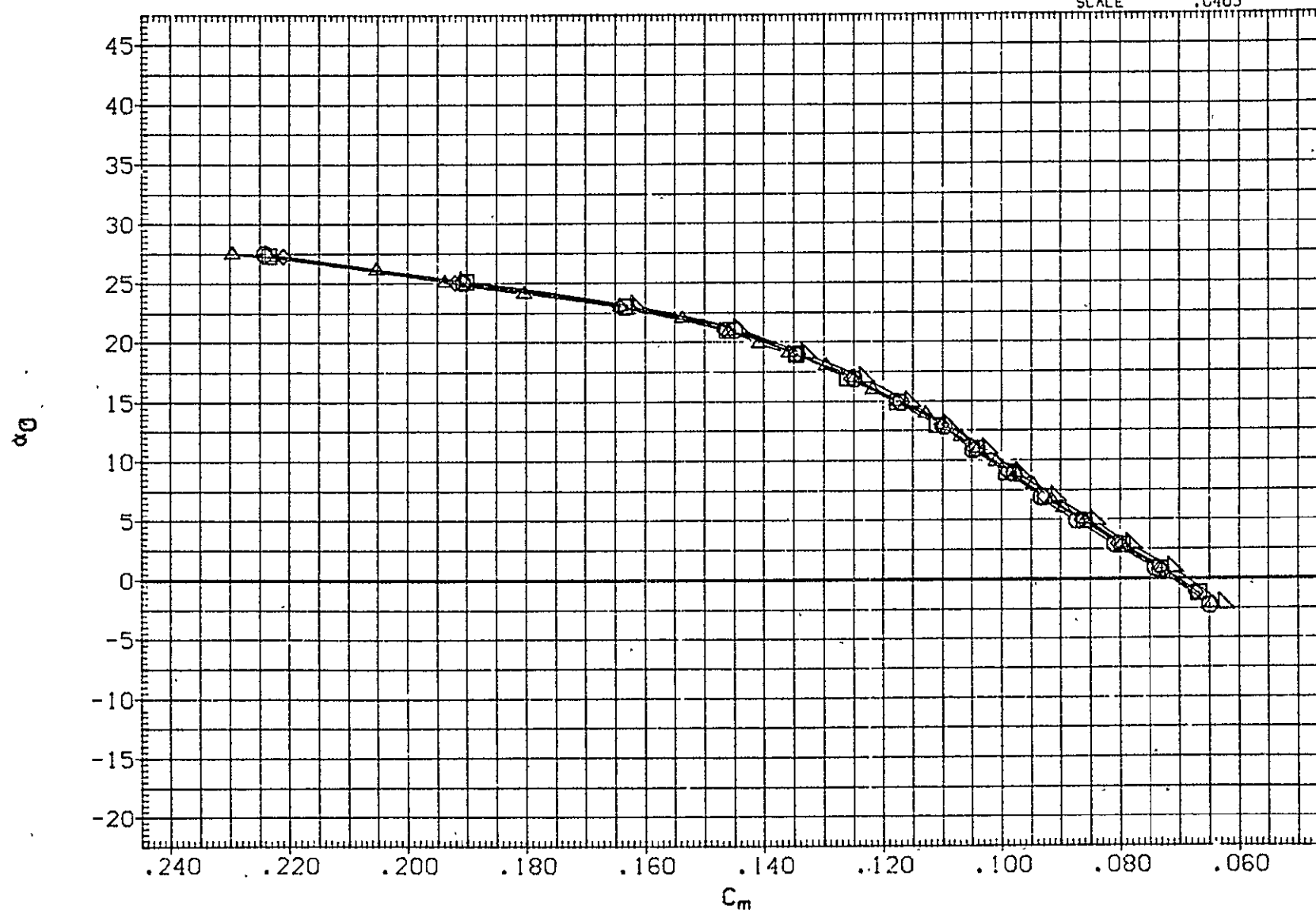


FIG 226 FERRY CONFIG. STABILIZER EFFECTIVENESS, FLAPS 30. IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF043) | □      | (CA-8) K2V9.1.2TS5F30G5.3.5TS401        |        |        | -11.700 | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF036) | ◇      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | .000   | -6.000 | -1.700  | .000 | LREF                  | 474.8100  | IN.    |
| (TJF037) | ◇      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | .000   | -4.000 | -1.700  | .000 | BREF                  | 936.6800  | IN.    |
| (TJF038) | △      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | .000   | -2.000 | -1.700  | .000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF039) | ▽      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | 17.000 | -4.000 | -11.700 | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |        |        |         |      | SCALE                 | .0405     |        |

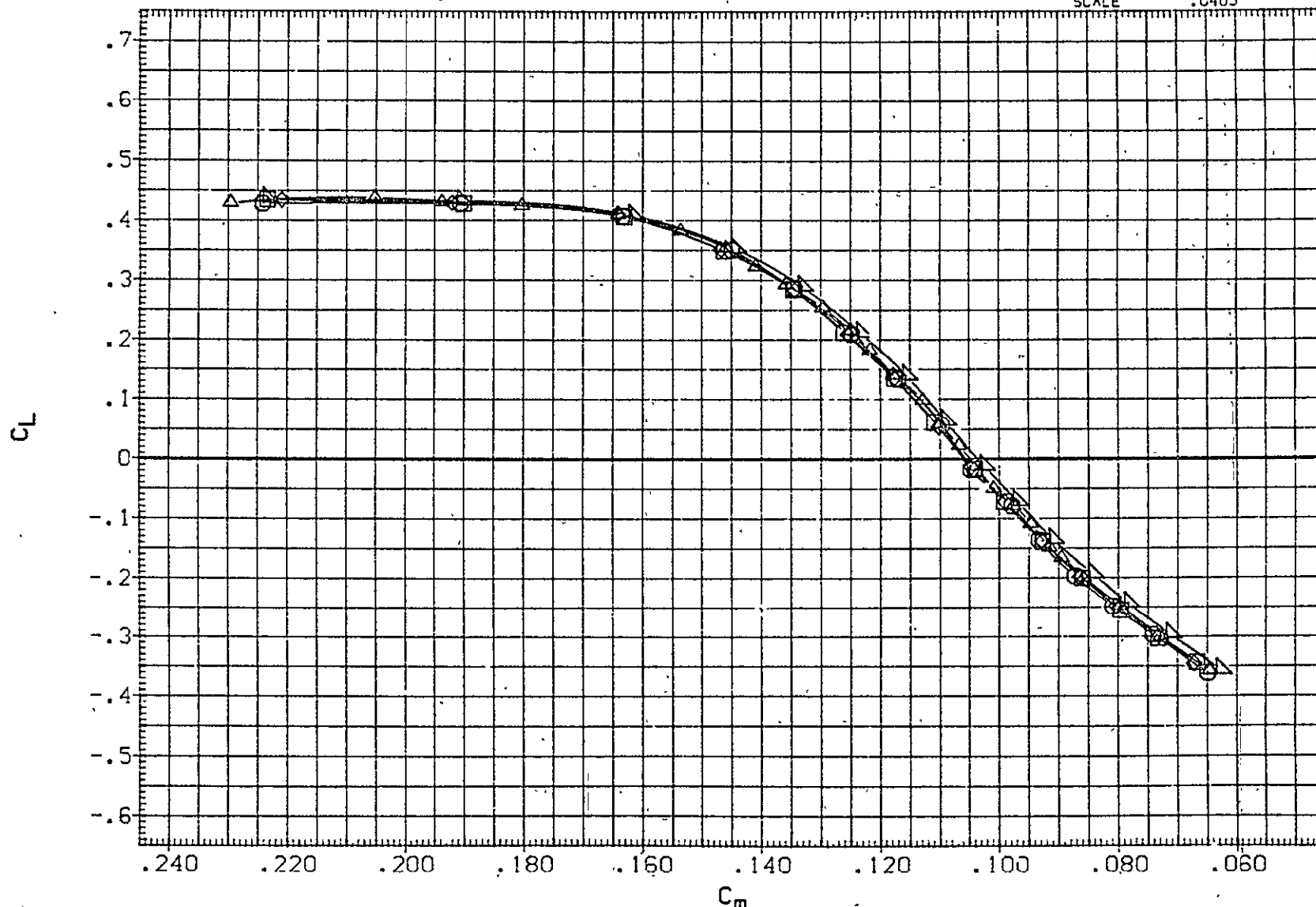


FIG 226 FERRY CONFIG. STABILIZER EFFECTIVENESS. FLAPS 30. IORB=3. TC ON. ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

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REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | 3D FLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF043) | ○      | (CA-8) K2V9.1.2TS5F30G5.3.5TS401        |        |        | -1.700  | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF036) | □      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | .000   | -6.000 | -1.700  | .000 | LREF                  | 474.8100  | IN.    |
| (TJF037) | ◇      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | .000   | -4.000 | -1.700  | .000 | BREF                  | 936.6800  | IN.    |
| (TJF038) | △      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | .000   | -2.000 | -1.700  | .000 | XMRP                  | 1109.0000 | IN, X0 |
| (TJF039) | ▽      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | 17.000 | -4.000 | -1.700  | .000 | YMRP                  | .0000     | IN, Y0 |
|          |        |   |        |        |         |      | ZMRP                  | 375.0000  | IN, Z0 |
|          |        |   |        |        |         |      | SCALE                 | .0405     |        |

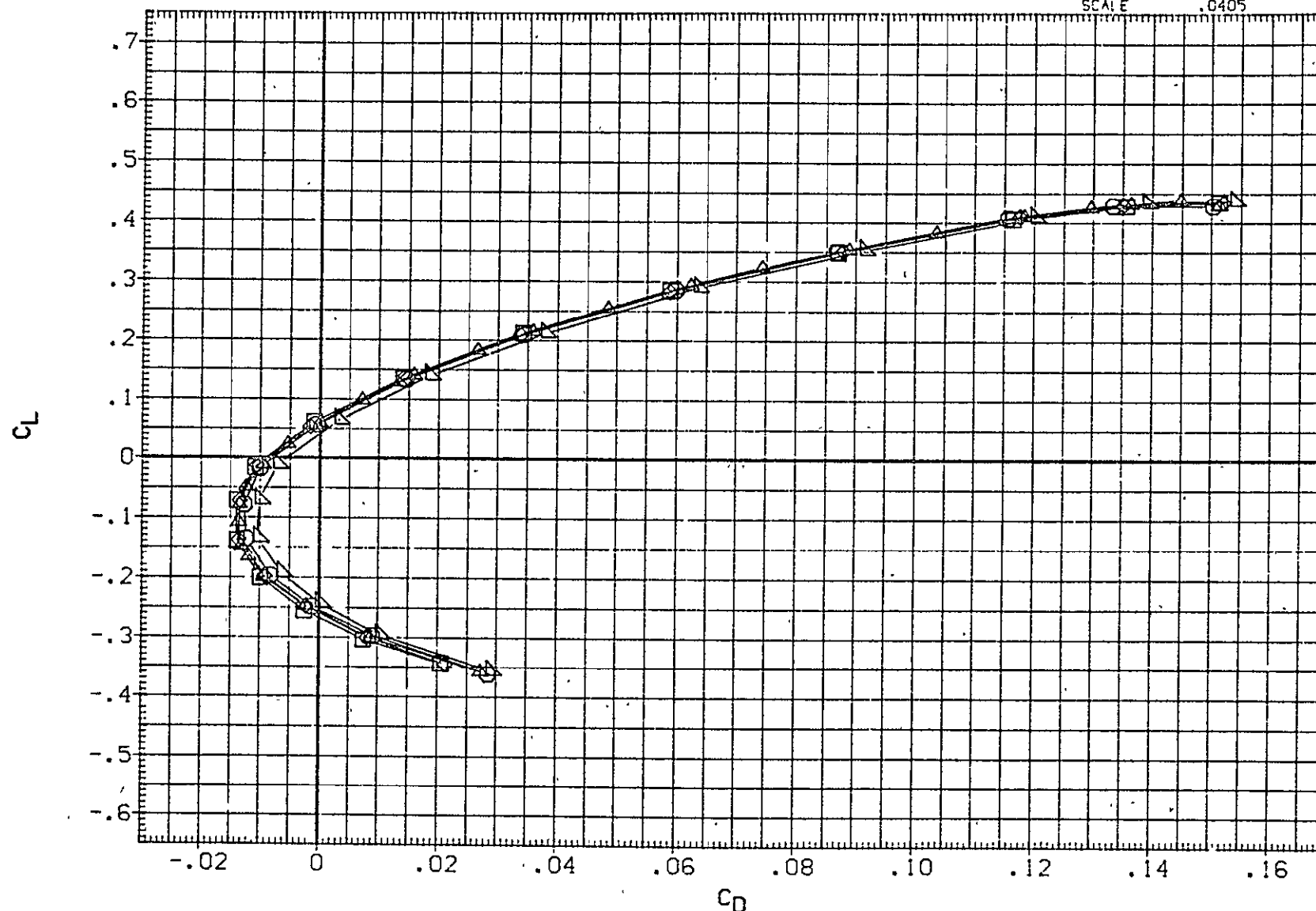


FIG 226 FERRY CONFIG. STABILIZER EFFECTIVENESS, FLAPS 30, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         |
|----------|--------|-----------------------------------|
| (TJF119) | ○      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 |
| (TJF120) | □      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 |
| (TJF121) | ◇      | (CA-8) K2V9.1.2TS6H15.6.1F10TS401 |

| ELEVTR  | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|---------|--------|---------|------|-----------------------|-----------|--------|
| .000    | -2.000 | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| -23.000 | -2.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| 17.000  | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
|         |        |         |      | XMRP                  | 1109.0000 | IN.X0  |
|         |        |         |      | YMPP                  | .0000     | IN.Y0  |
|         |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|         |        |         |      | SCALE                 | .0405     |        |

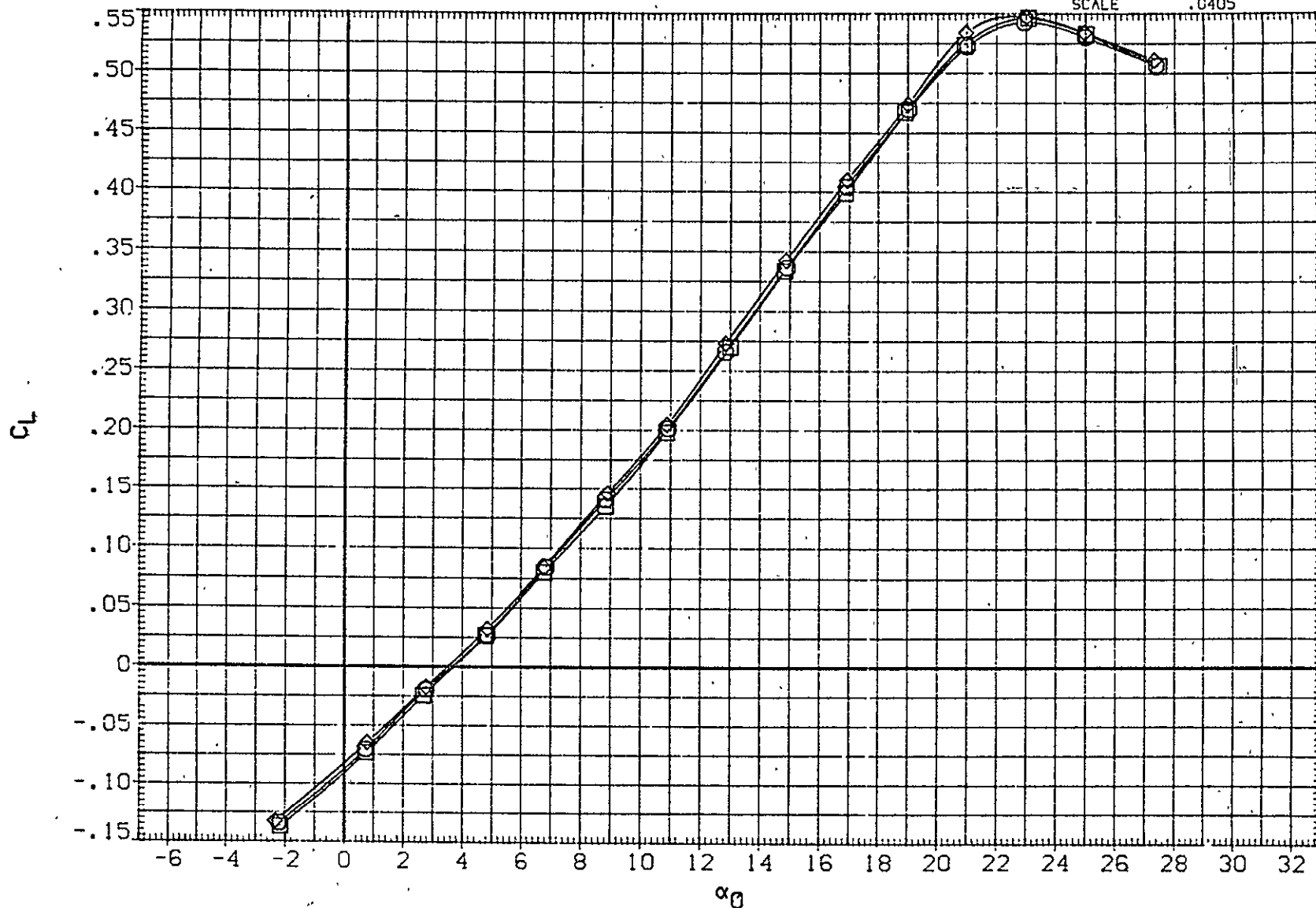


FIG 227 FERRY CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 10, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR  | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |         |
|----------|--------|-----------------------------------|---------|--------|---------|------|-----------------------|-----------|---------|
| (TJF119) | ○      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000    | -2.000 | -11.700 | .000 | SREF                  | 2690.0000 | SQ. FT. |
| (TJF120) | □      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | -23.000 | -2.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.     |
| (TJF121) | ◇      | (CA-8) K2V9.1.2TS6H15.6.1F10TS401 | 17.000  | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.     |
|          |        |                                   |         |        |         |      | XMRP                  | 1109.0000 | IN. X0  |
|          |        |                                   |         |        |         |      | YMRP                  | .0000     | IN. Y0  |
|          |        |                                   |         |        |         |      | ZMRP                  | 375.0000  | IN. Z0  |
|          |        |                                   |         |        |         |      | SCALE                 | .0405     |         |

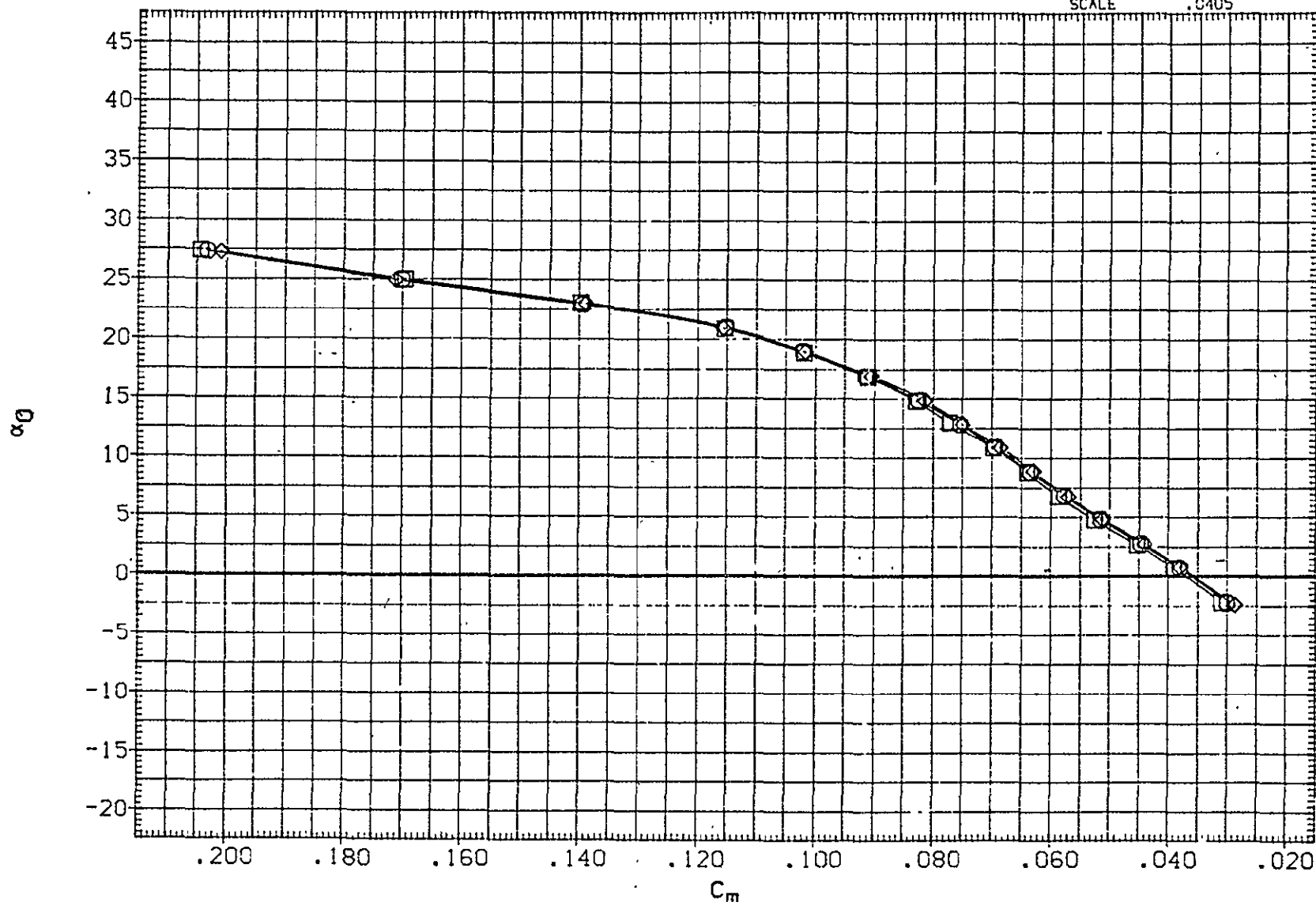


FIG 227 FERRY CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 10, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR  | STAB   | EDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|---------|--------|---------|------|-----------------------|-----------|--------|
| (TJF119) | ○      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000    | -2.000 | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF120) | □      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | -23.000 | -2.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF121) | ◇      | (CA-8) K2V9.1.2TS6H15.6.1F10TS401 | 17.000  | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
|          |        |                                   |         |        |         |      | XMRP                  | 1109.0000 | IN.X0  |
|          |        |                                   |         |        |         |      | YMRP                  | .0000     | IN.Y0  |
|          |        |                                   |         |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                   |         |        |         |      | SCALE                 | .0405     |        |

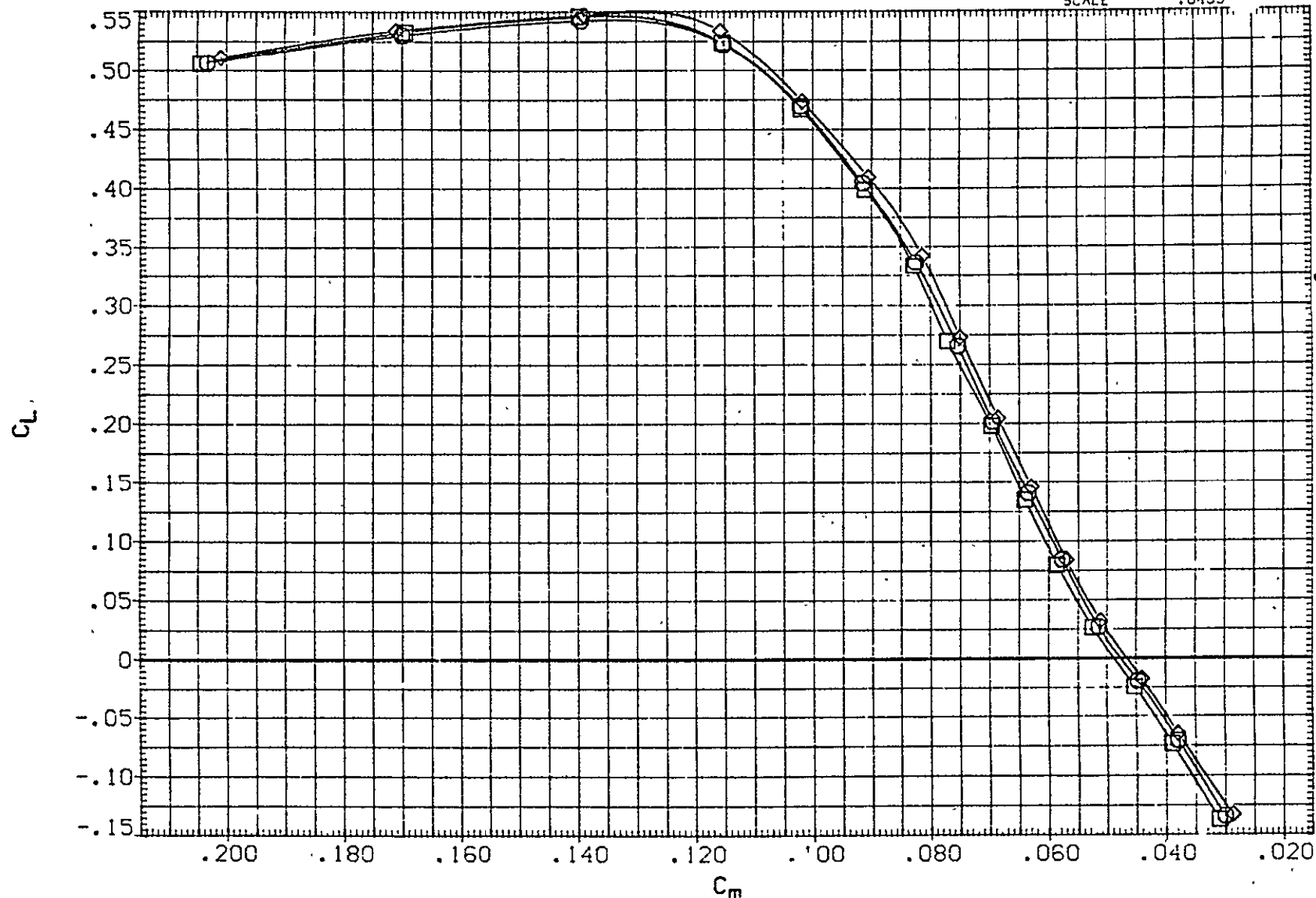


FIG 227 FERRY CONFIG. ELEVATOR EFFECTIVENESS. FLAPS 10. IORB=3. TC ON.ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR  | STAB   | BDFLAP  | BFTA | REFERENCE INFORMATION |           |         |
|----------|--------|-----------------------------------|---------|--------|---------|------|-----------------------|-----------|---------|
| (TJF119) | ○      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | .000    | -2.000 | -11.700 | .000 | SREF                  | 2690.0000 | 50. FT. |
| (TJF120) | □      | (CA-8) K2V9.1.2TS5H15.6.1F10TS401 | -23.000 | -2.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.     |
| (TJF121) | ◇      | (CA-8) K2V9.1.2TS6H15.6.1F10TS401 | 17.000  | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.     |
|          |        |                                   |         |        |         |      | XMRP                  | 1109.0000 | IN. X0  |
|          |        |                                   |         |        |         |      | YMRP                  | .0000     | IN. Y0  |
|          |        |                                   |         |        |         |      | ZMRP                  | 375.0000  | IN. Z0  |
|          |        |                                   |         |        |         |      | SCALE                 | .0405     |         |

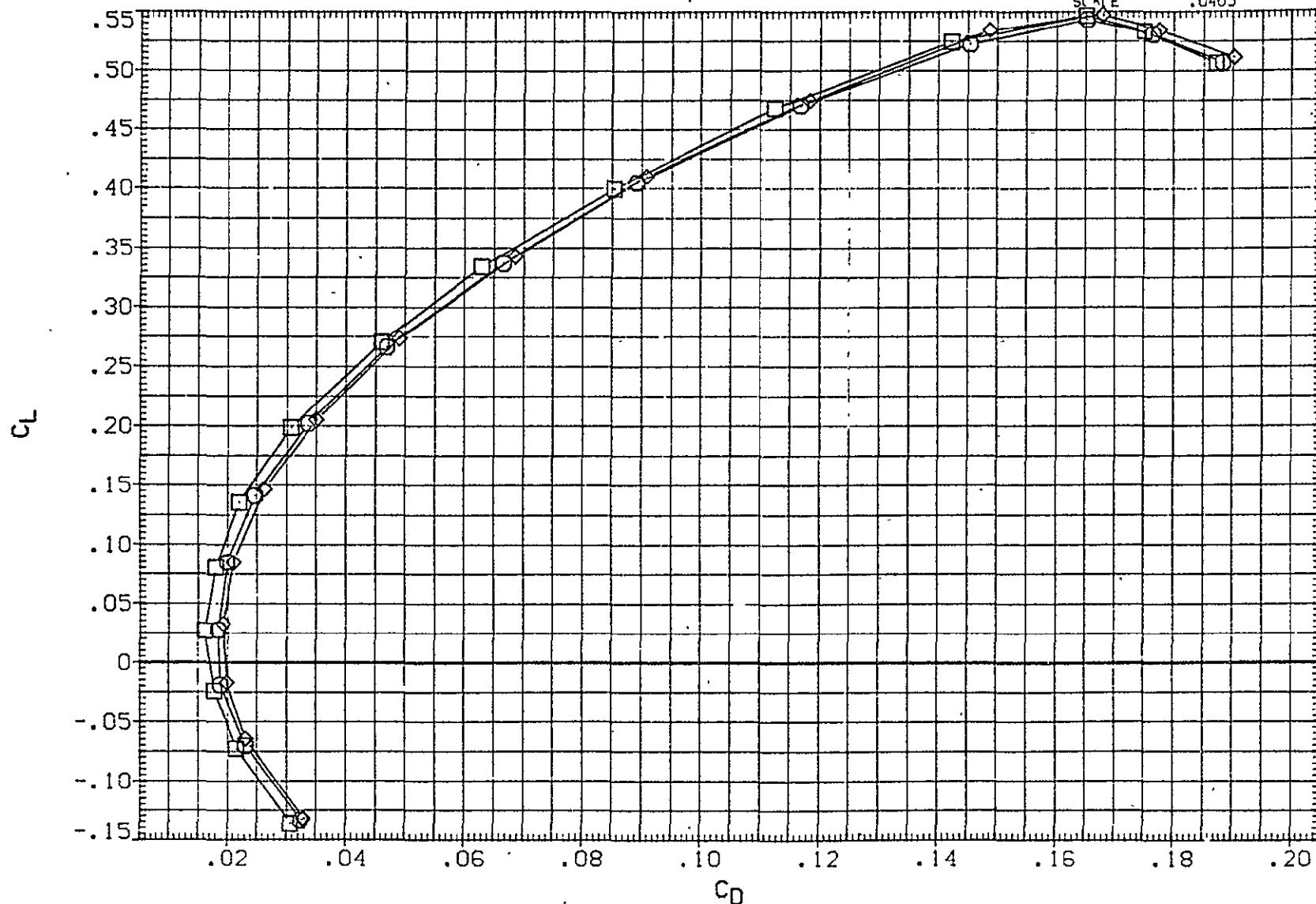


FIG 227 FERRY CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 10, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         |
|----------|--------|-----------------------------------|
| (TJF095) | ○      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 |
| (TJF098) | □      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 |
| (TJF099) | ◇      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 |

| ELEVTR  | STAB   | BDFLAP  | BETA |
|---------|--------|---------|------|
| .000    | -4.000 | -11.700 | .000 |
| -23.000 | -4.000 | -11.700 | .000 |
| 17.000  | -4.000 | -11.700 | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | SO.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN.X0  |
| YMRP                  | .0000     | IN.Y0  |
| ZMRP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

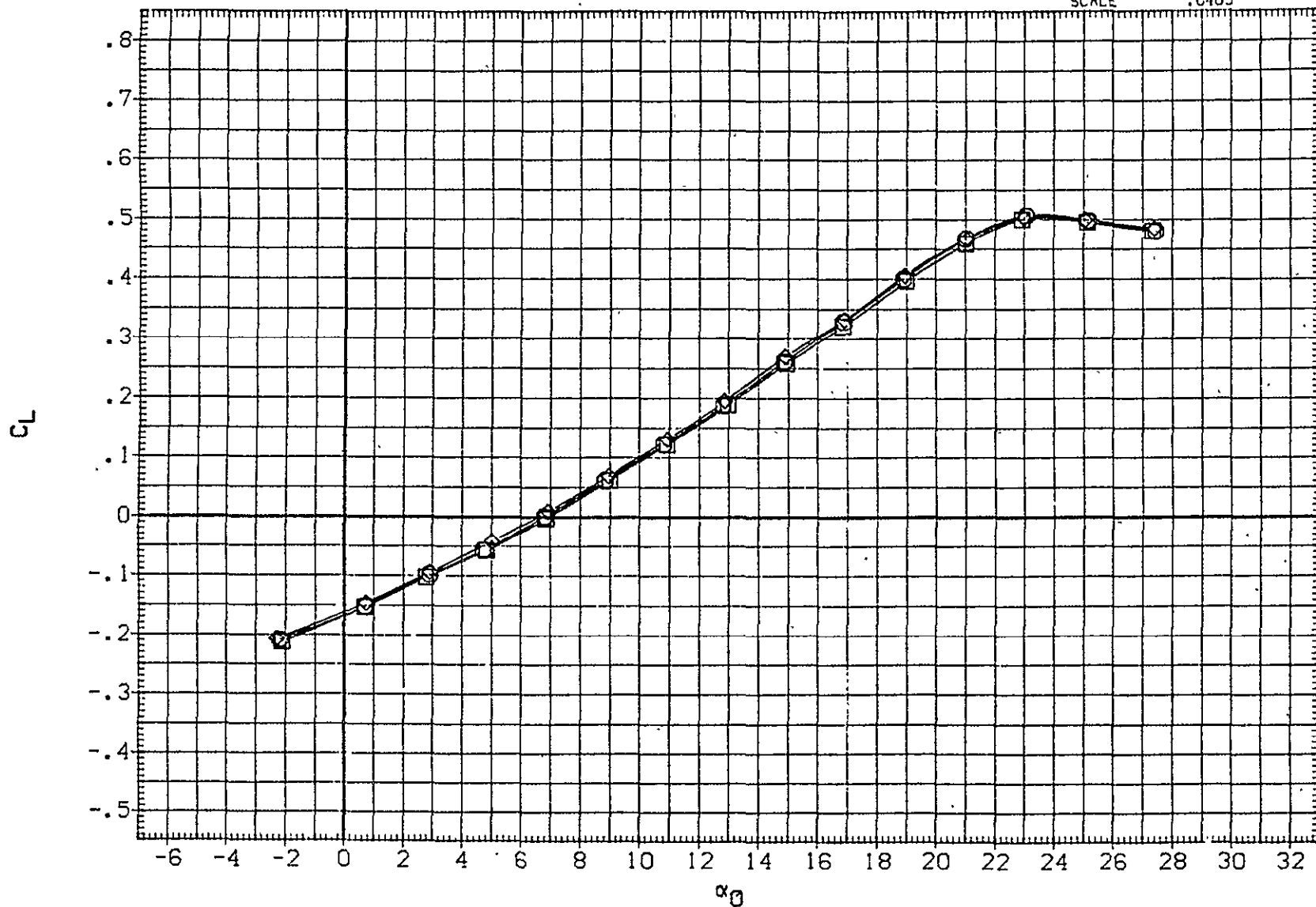


FIG 228 FERRY CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 20, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR  | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|---------|--------|---------|------|-----------------------|-----------|--------|
| (TJF095) | ○      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 | .000    | -4.000 | -11.700 | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF098) | □      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 | -23.000 | -4.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF099) | ◇      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 | 17.000  | -4.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
|          |        |                                   |         |        |         |      | XMRP                  | 1109.0000 | IN. X0 |
|          |        |                                   |         |        |         |      | YMRP                  | .0000     | IN. Y0 |
|          |        |                                   |         |        |         |      | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                   |         |        |         |      | SCALE                 | .0405     |        |

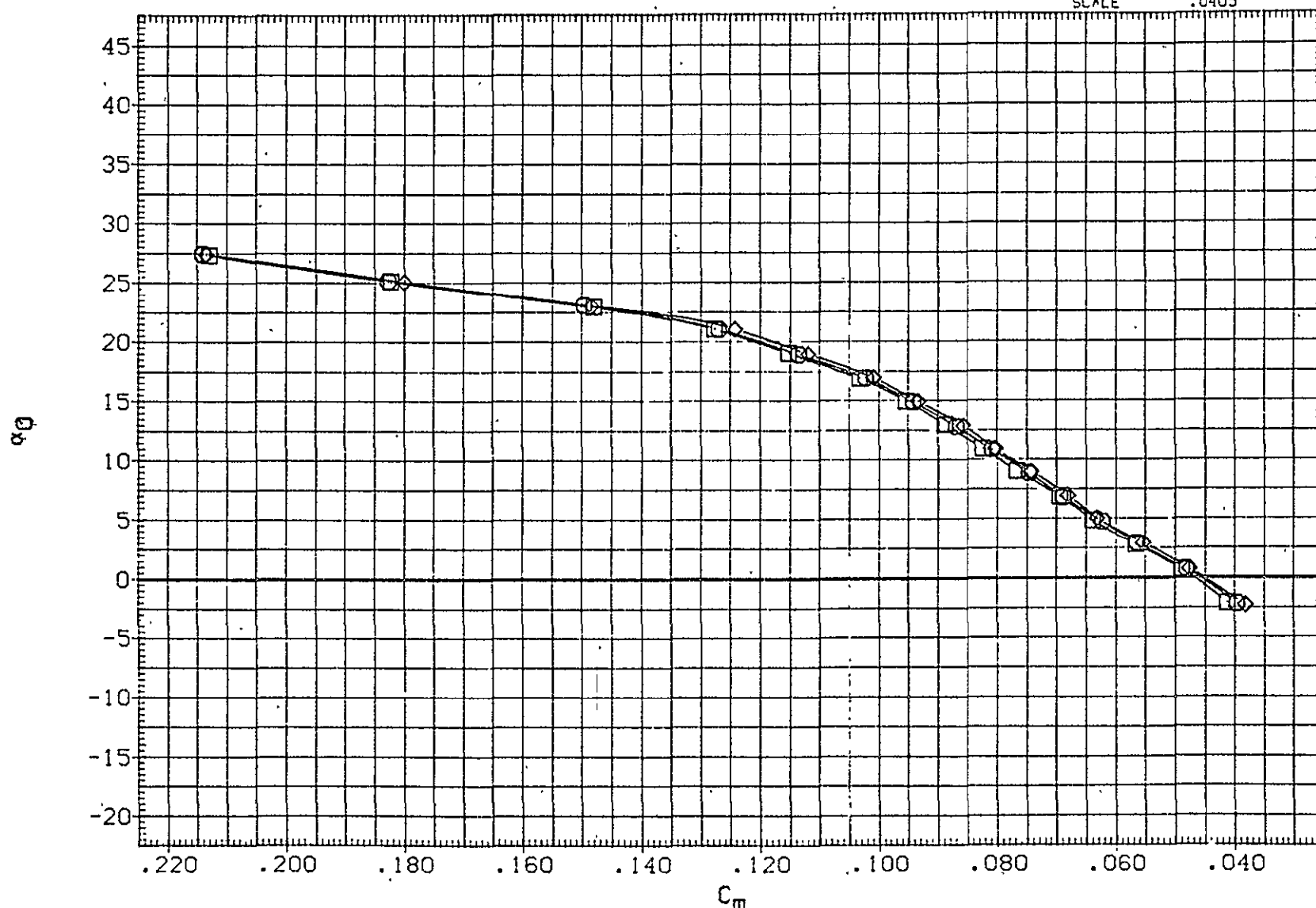


FIG 228 FERRY CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 20, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR  | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|---------|--------|---------|------|-----------------------|-----------|--------|
| (TJF095) | ○      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 | .000    | -4.000 | -11.700 | .000 | SREF                  | 2690.0000 | SG.FT. |
| (TJF098) | □      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 | -23.000 | -4.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF099) | ◇      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 | 17.000  | -4.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
|          |        |                                   |         |        |         |      | XMRP                  | 1109.0000 | IN.X0  |
|          |        |                                   |         |        |         |      | YMRP                  | .0000     | IN.Y0  |
|          |        |                                   |         |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                   |         |        |         |      | SCALE                 | .0405     |        |

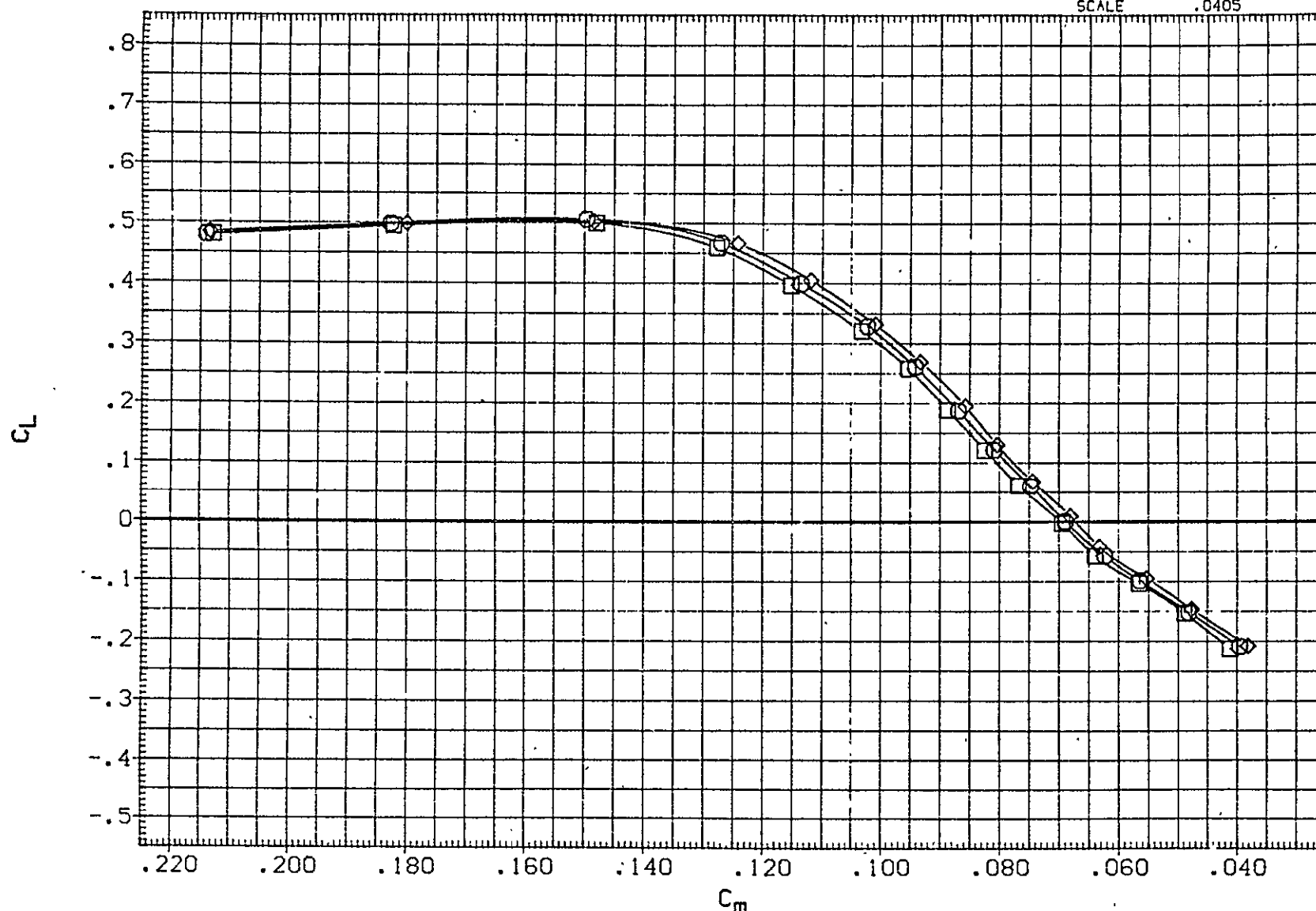


FIG 228 FERRY CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 20, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         |
|----------|--------|-----------------------------------|
| (TJF095) | □      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 |
| (TJF098) | ○      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 |
| (TJF099) | ◇      | (CA-8) K2V9.1.2TS5H15.6.1F20TS401 |

| ELEVTR  | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |                  |
|---------|--------|---------|------|-----------------------|------------------|
| .000    | -4.000 | -11.700 | .000 | SREF                  | 2690.0000 SQ.FT. |
| -23.000 | -4.000 | -11.700 | .000 | LREF                  | 474.8100 IN.     |
| 17.000  | -4.000 | -11.700 | .000 | BREF                  | 936.6800 IN.     |
|         |        |         |      | XMRF                  | 1109.0000 IN.X0  |
|         |        |         |      | YMRF                  | .0000 IN.Y0      |
|         |        |         |      | ZMRF                  | 375.0000 IN.Z0   |
|         |        |         |      | SCALE                 | .0405            |

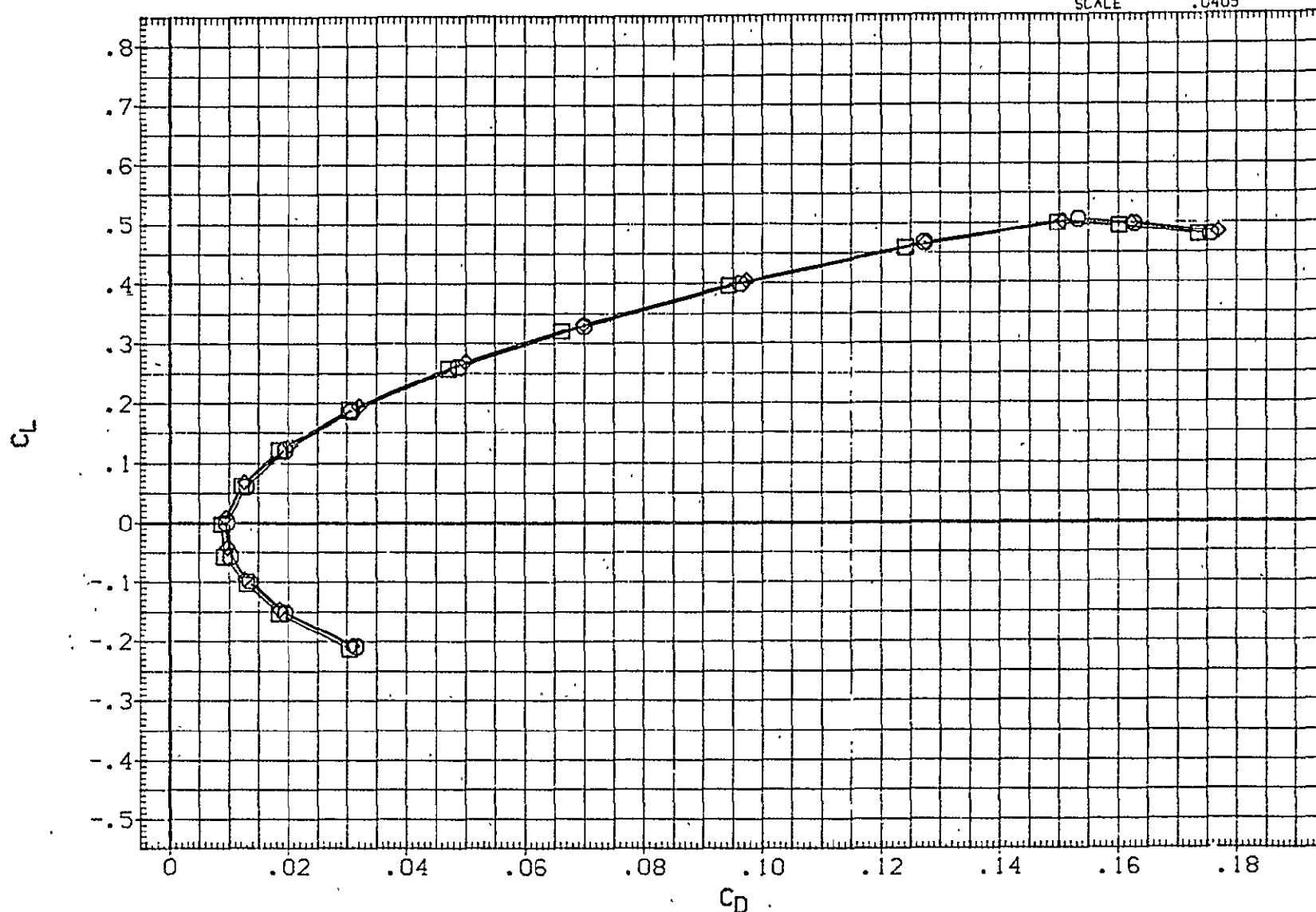


FIG 228 FERRY CONFIG. ELEVATOR EFFECTIVENESS. FLAPS 20, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTH  | STAB   | BDFLAP  | BFTA | REFERENCE INFORMATION |           |        |
|----------|--------|---|---------|--------|---------|------|-----------------------|-----------|--------|
| (TJF037) | ○      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | .000    | -4.000 | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF039) | □      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | 17.000  | -4.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF040) | ◇      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | 10.000  | -4.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF041) | △      | (CA-8) K2V9.1.2TS5H15.6.1F30G5.3.5TS401 | -10.000 | -4.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF042) | ▽      | (CA-8) K2V9.1.2TS5H15.6.1F30G5.3.5TS401 | -23.000 | -4.000 | -11.700 | .000 | YMRP                  | .0000     | IN. Y0 |
|          |        |   |         |        |         |      | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |   |         |        |         |      | SCALE                 | .0405     |        |

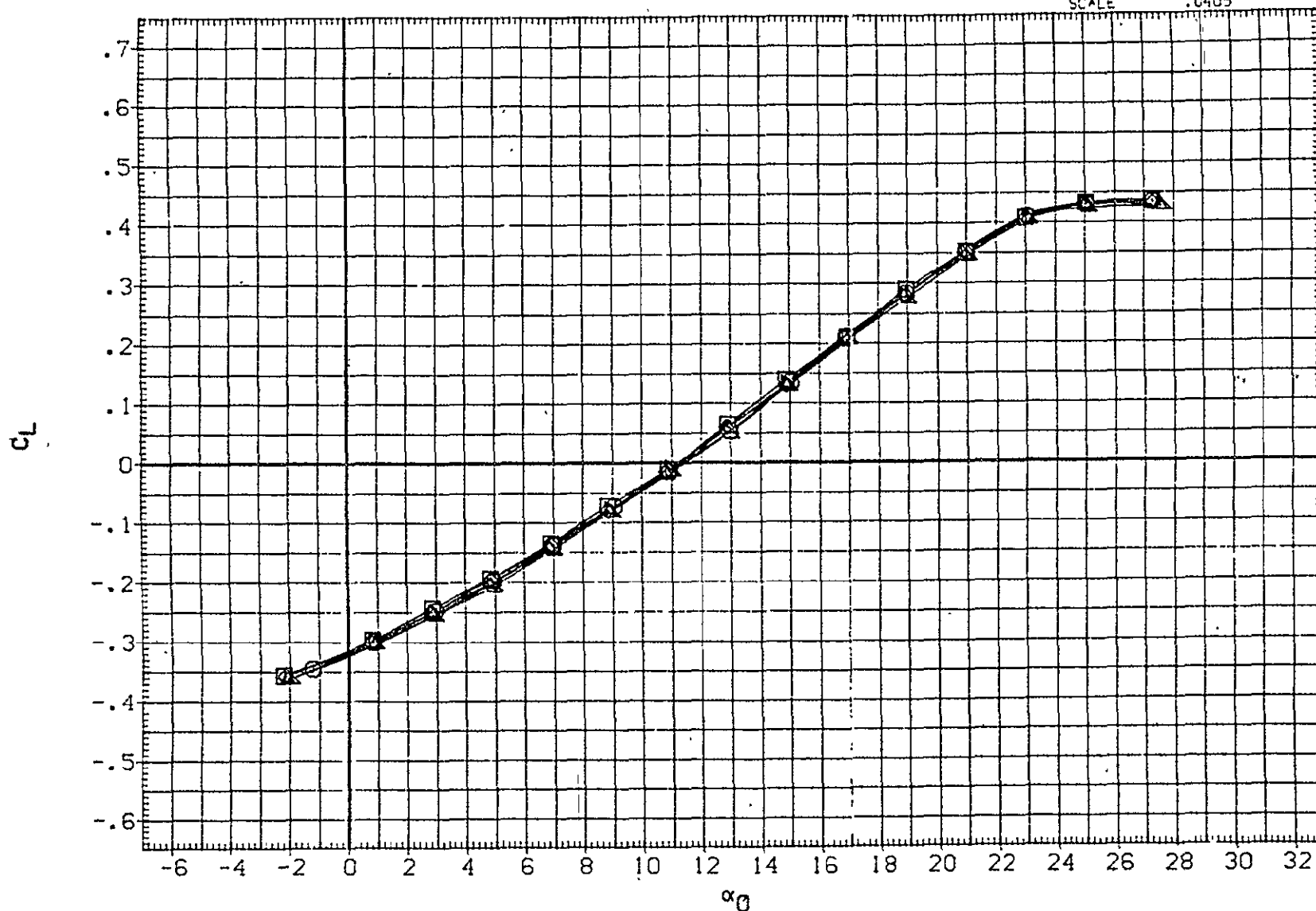


FIG 229 FERRY CONFIG. ELEVATOR EFFECTIVENESS. FLAPS 30, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR  | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |         |
|----------|--------|---|---------|--------|---------|------|-----------------------|-----------|---------|
| (TJFQ37) | ○      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | .000    | -4.000 | -11.700 | .000 | SREF                  | 2690.0000 | 50. FT. |
| (TJFQ39) | □      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | 17.000  | -4.000 | -11.700 | .000 | LREF                  | 474.8100  | IN. .   |
| (TJFQ40) | ◇      | (CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401 | 10.000  | -4.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.     |
| (TJFQ41) | △      | (CA-8) K2V9.1.2TS5H15.6.1F30G5.3.5TS401 | -10.000 | -4.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN. X0  |
| (TJFQ42) | ▽      | (CA-8) K2V9.1.2TS5H15.6.1F30G5.3.5TS401 | -23.000 | -4.000 | -11.700 | .000 | YMRP                  | .0000     | IN. Y0  |
|          |        |   |         |        |         |      | ZMRP                  | 375.0000  | IN. Z0  |
|          |        |   |         |        |         |      | SCALE                 | .0405     |         |

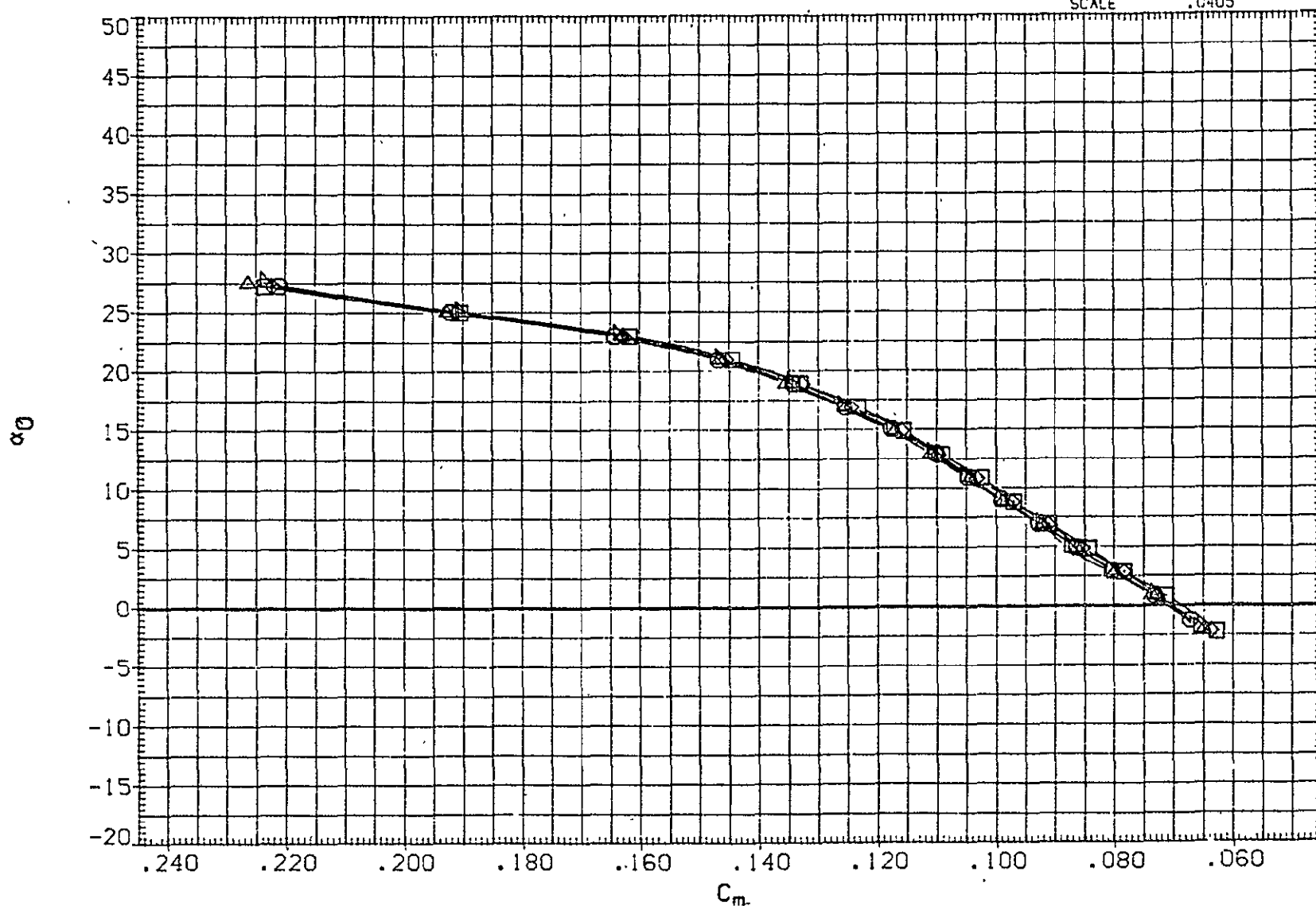


FIG 229 FERRY CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 30, 10RB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR  | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|---------|--------|---------|------|-----------------------|-----------|--------|
| (TJF037) | ○      | (CA-8) K2V9.1.2TS5F30H15.6.165.3.5TS401 | .000    | -4.000 | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF039) | □      | (CA-8) K2V9.1.2TS5F30H15.6.165.3.5TS401 | 17.000  | -4.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF040) | ◇      | (CA-8) K2V9.1.2TS5F30H15.6.165.3.5TS401 | 10.000  | -4.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF041) | △      | (CA-8) K2V9.1.2TS5H15.6.1F30G5.3.5TS401 | -10.000 | -4.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF042) | ▽      | (CA-8) K2V9.1.2TS5H15.6.1F30G5.3.5TS401 | -23.000 | -4.000 | -11.700 | .000 | YMRP                  | .00000    | IN. Y0 |
|          |        |   |         |        |         |      | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |   |         |        |         |      | SCALE                 | .0405     |        |

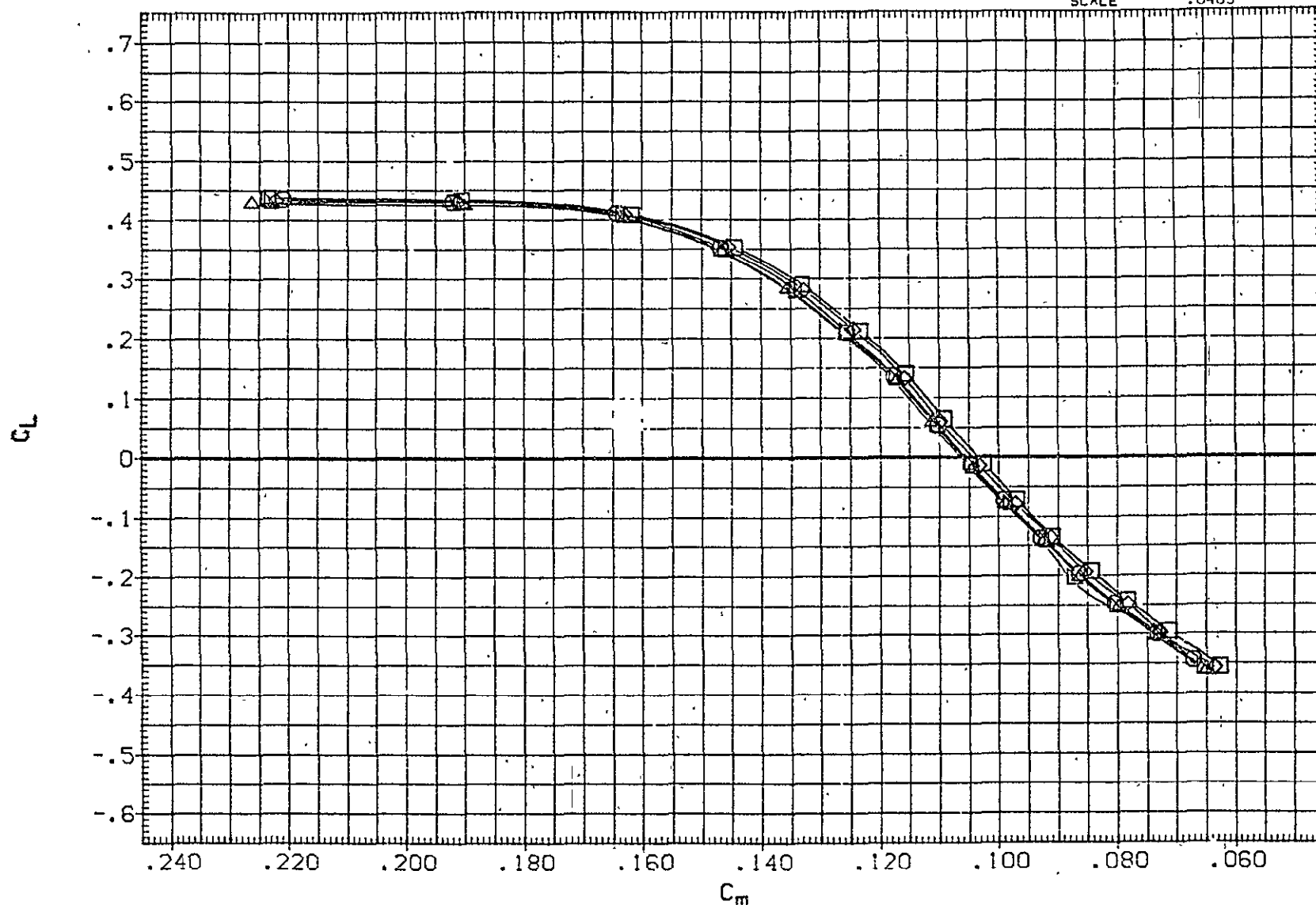


FIG 229 FERRY CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 30, IORB=3, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR  | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|---------|--------|---------|------|-----------------------|-----------|--------|
| (TJF037) | ○      | (CA-8) K2V9.1.2TS5F30H15.6.165.3.5TS401 | .000    | -4.000 | -11.700 | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF039) | □      | (CA-8) K2V9.1.2TS5F30H15.6.165.3.5TS401 | 17.000  | -4.000 | -11.700 | .000 | LREF                  | 474.8100  | 1N.    |
| (TJF040) | ◇      | (CA-8) K2V9.1.2TS5F30H15.6.165.3.5TS401 | 10.000  | -4.000 | -11.700 | .000 | BREF                  | 936.6800  | 1N.    |
| (TJF041) | △      | (CA-8) K2V9.1.2TS5H15.6.1F30G5.3.5TS401 | -10.000 | -4.000 | -11.700 | .000 | XMRP                  | 1109.0000 | 1N.X0  |
| (TJF042) | ▽      | (CA-8) K2V9.1.2TS5H15.6.1F30G5.3.5TS401 | -23.000 | -4.000 | -11.700 | .000 | YMRP                  | .0000     | 1N.Y0  |
|          |        |   |         |        |         |      | ZMRP                  | 375.0000  | 1N.Z0  |
|          |        |   |         |        |         |      | SCALE                 | .0405     |        |

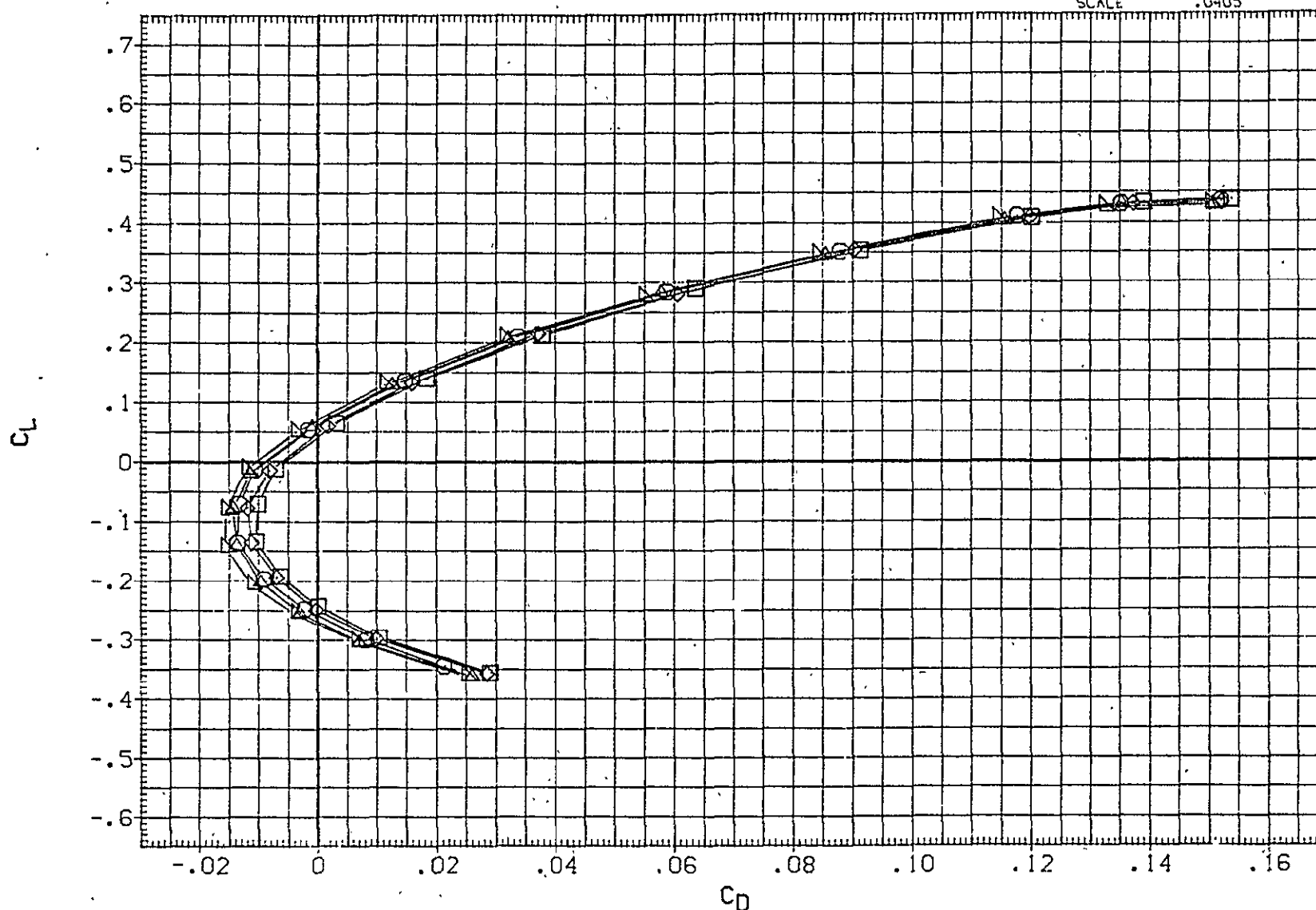


FIG 229 FERRY CONFIG. ELEVATOR EFFECTIVENESS. FLAPS 30. IORB=3. TC ON.ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION        | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF129) | ○      | (CA-8) K3V9.1.2TS6 FOTS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF126) | □      | (CA-8) K3V9.1.2TS6H15.6.1FOTS401 | .000   | -4.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF127) | ◇      | (CA-8) K3V9.1.2TS6H15.6.1FOTS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF128) | △      | (CA-8) K3V9.1.2TS6H15.6.1FOTS401 | .000   | .000   | -11.700 | .000 | XMRP                  | 1109.0000 | IN.XC  |
|          |        |                                  |        |        |         |      | YMRP                  | .0000     | IN.YC  |
|          |        |                                  |        |        |         |      | ZMRP                  | 375.0000  | IN.ZC  |
|          |        |                                  |        |        |         |      | SCALE                 | .0405     |        |

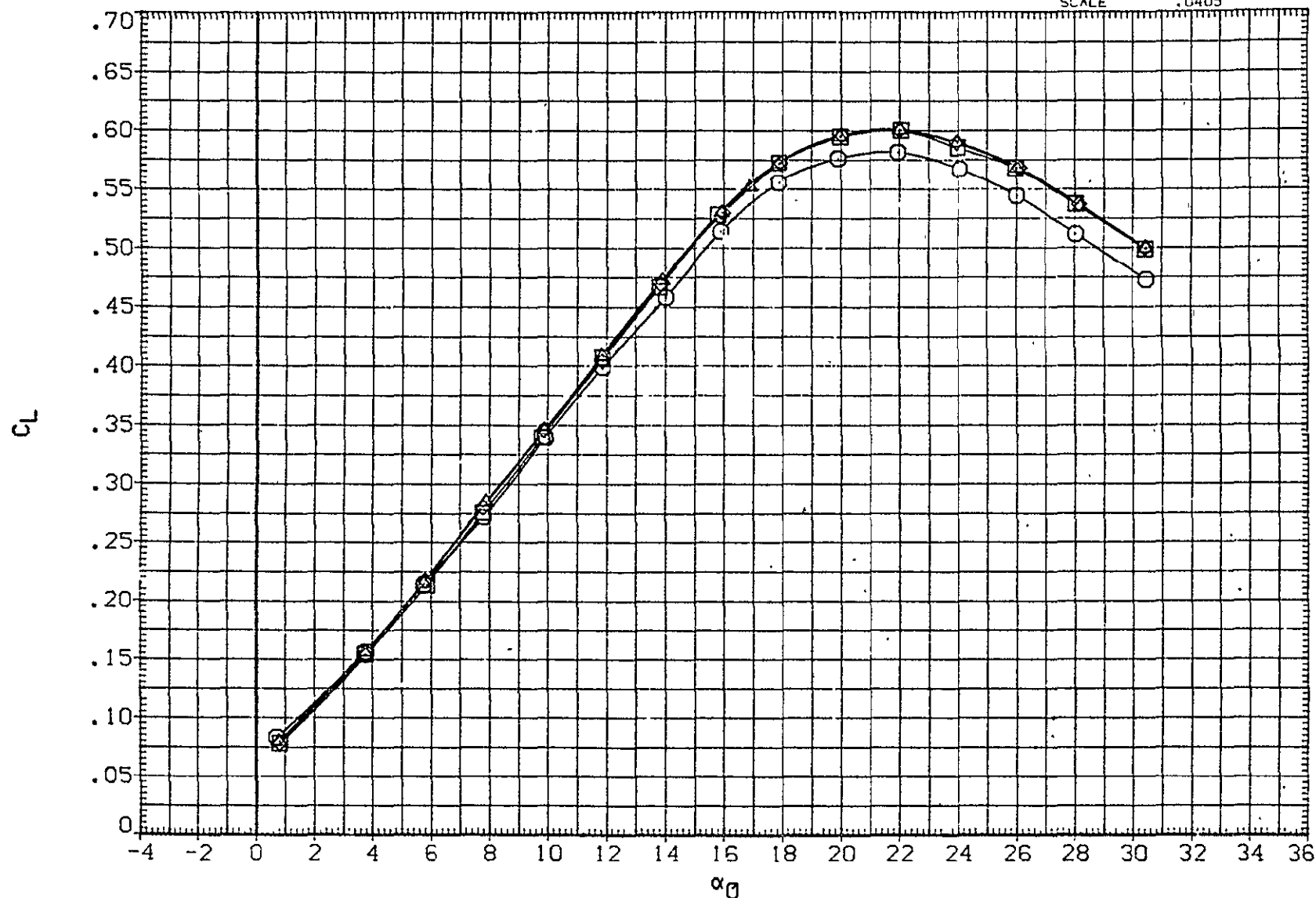


FIG 230 . ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS UP, IORB=6, TC ON,ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION        | ELEVTR | STAB   | BDFLAP  | BFTA | REFERENCE INFORMATION |           |        |
|----------|--------|----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF129) | ○      | (CA-8) K3V9.1.2TS6 FOTS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF126) | □      | (CA-8) K3V9.1.2TS6H15.6.1FOTS401 | .000   | -4.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF127) | ◇      | (CA-8) K3V9.1.2TS6H15.6.1FOTS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF128) | △      | (CA-8) K3V9.1.2TS6H15.6.1FOTS401 | .000   | .000   | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |                                  |        |        |         |      | YMRP                  | .0000     | IN.Y0  |
|          |        |                                  |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                  |        |        |         |      | SCALE                 | .0405     |        |

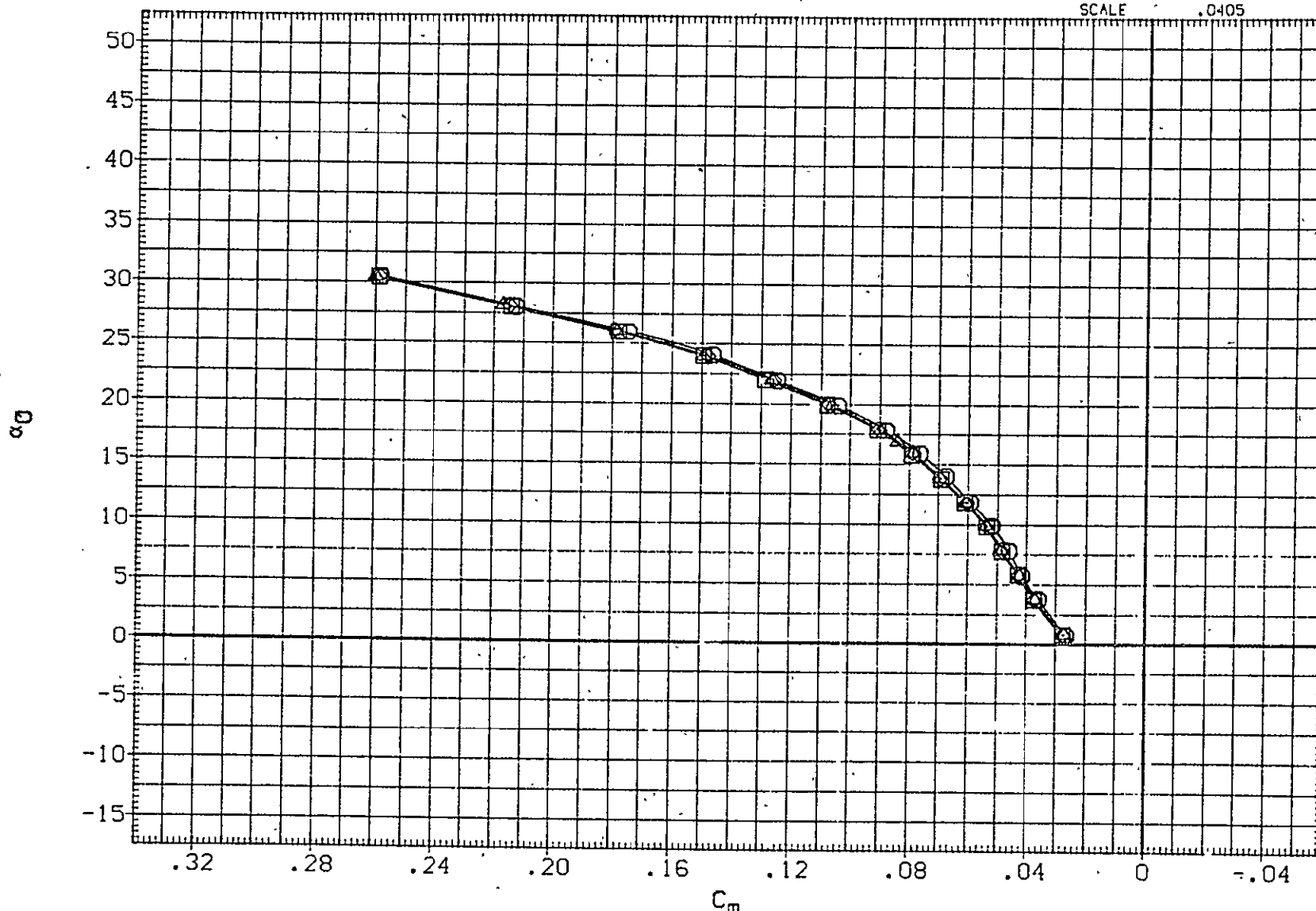


FIG 230 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS UP, IORB=6, TC ON, ELEV=0  
 ORBITER BALANCE DATA-ALPHA SWEEPS  
 (A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION        | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF129) | ○      | (CA-8) K3V9.1.2TS6 FOTS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | SC.FT. |
| (TJF126) | □      | (CA-8) K3V9.1.2TS6H15.6.1FOTS401 | .000   | -4.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF127) | ◇      | (CA-8) K3V9.1.2TS6H15.6.1FOTS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF128) | △      | (CA-8) K3V9.1.2TS6H15.6.1FOTS401 | .000   | .000   | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |                                  |        |        |         |      | YMRP                  | .0000     | IN.Y0  |
|          |        |                                  |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                  |        |        |         |      | SCALE                 | .0405     |        |



FIG 230 ALT CONFIG. STABILIZER EFFECTIVENESS. FLAPS UP. IORB=6. TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION        | ELEVTR | STAB   | BDFLAP  | BFTA | REFERENCE INFORMATION |           |        |
|----------|--------|----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF129) | ○      | (CA-8) K3V9.1.2TS6 FOTS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | SG.FT. |
| (TJF126) | □      | (CA-8) K3V9.1.2TS6H15.6.1FOTS401 | .000   | -4.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF127) | ◇      | (CA-8) K3V9.1.2TS6H15.6.1FOTS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF128) | △      | (CA-8) K3V9.1.2TS6H15.6.1FOTS401 | .000   | .000   | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |                                  |        |        |         |      | YMRP                  | .0000     | IN.Y0  |
|          |        |                                  |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                  |        |        |         |      | SCALE                 | .0405     |        |

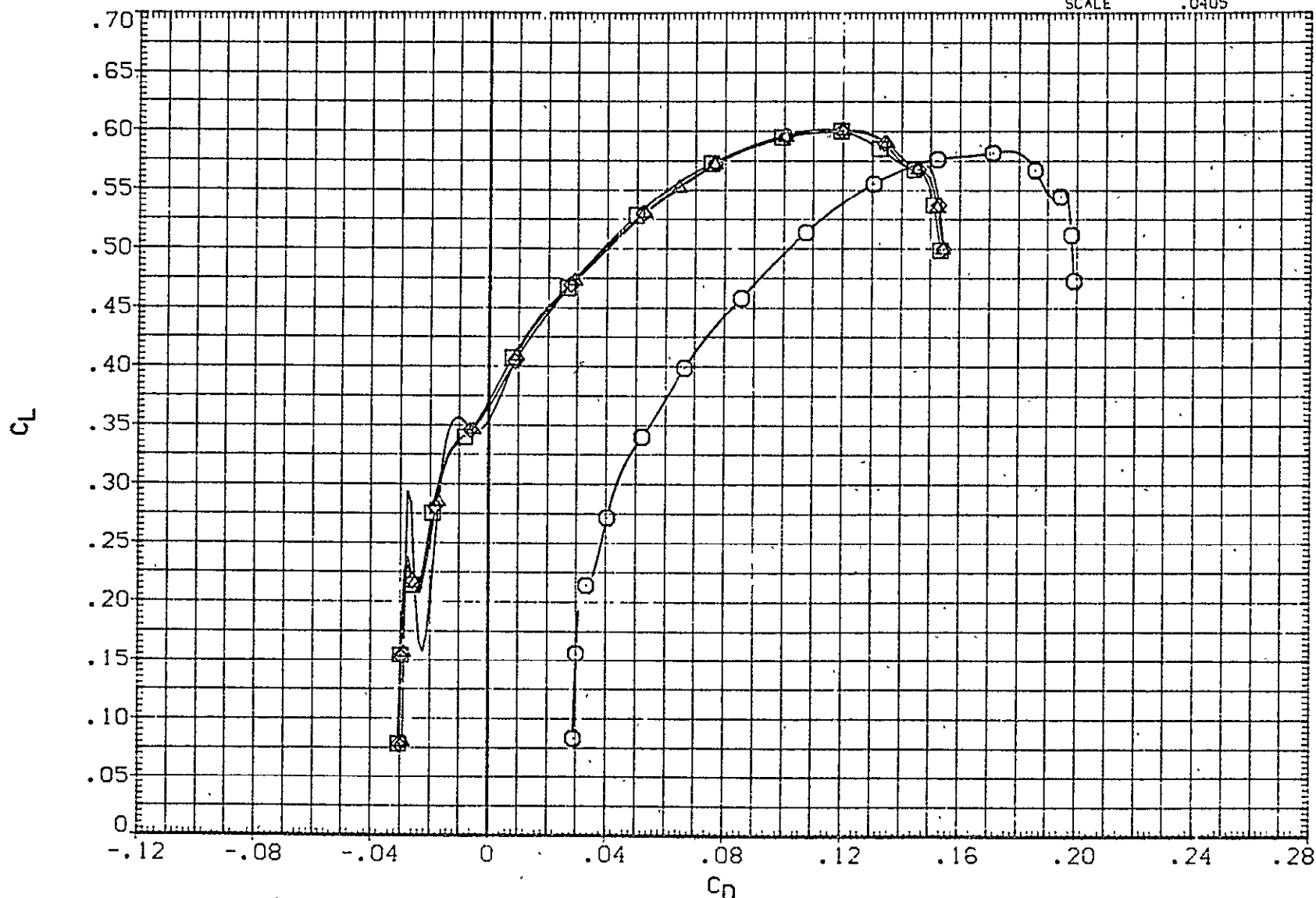


FIG 230 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS UP, IORB=6, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         |
|----------|--------|-----------------------------------|
| (TJF085) | ○      | (CA-8) K3V9.1.2TS5 F20TS401       |
| (TJF082) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 |
| (TJF083) | ×      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 |
| (TJF084) | △      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 |

| ELEV | STAB   | BDFLAP  | BFTA |
|------|--------|---------|------|
|      |        | -11.700 | .000 |
| .000 | -4.000 | -11.700 | .000 |
| .000 | -2.000 | -11.700 | .000 |
| .000 | .000   | -11.700 | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | 50.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN.X0  |
| YMRP                  | .0000     | IN.Y0  |
| ZMRP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

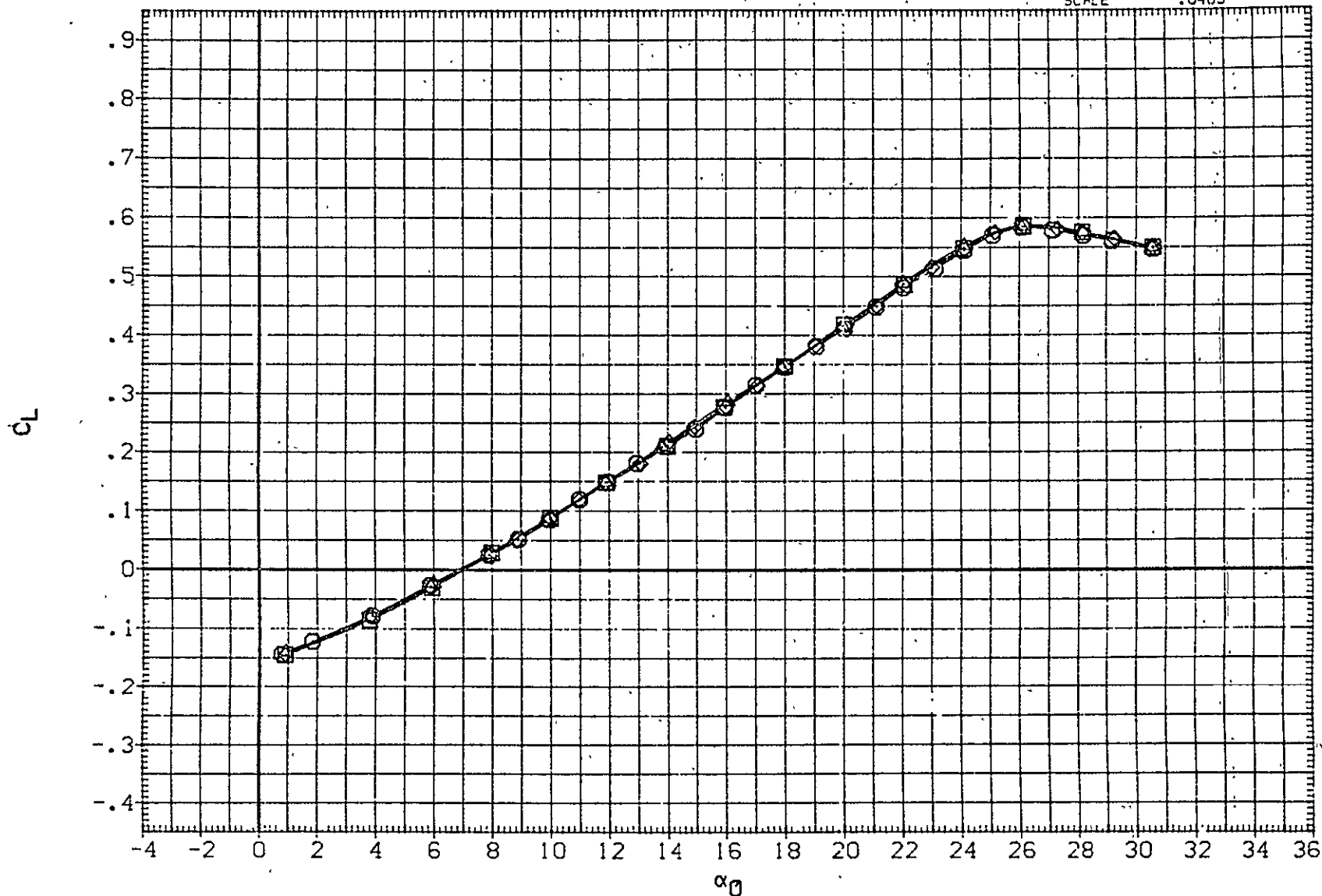


FIG 231 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 20, IORB=6, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

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| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP  | BFTA | REFERENCE INFORMATION |                  |
|----------|--------|-----------------------------------|--------|--------|---------|------|-----------------------|------------------|
| (TJF085) | ○      | (CA-8) K3V9.1.2TS5 F20TS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 SQ.FT. |
| (TJF082) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | -4.000 | -11.700 | .000 | LREF                  | 474.8100 IN.     |
| (TJF083) | ×      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800 IN.     |
| (TJF084) | △      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | .000   | -11.700 | .000 | XMRP                  | 1109.0000 IN.X0  |
|          |        |                                   |        |        |         |      | YMRP                  | .0000 IN.Y0      |
|          |        |                                   |        |        |         |      | ZMRP                  | 375.0000 IN.Z0   |
|          |        |                                   |        |        |         |      | SCALE                 | .0405            |

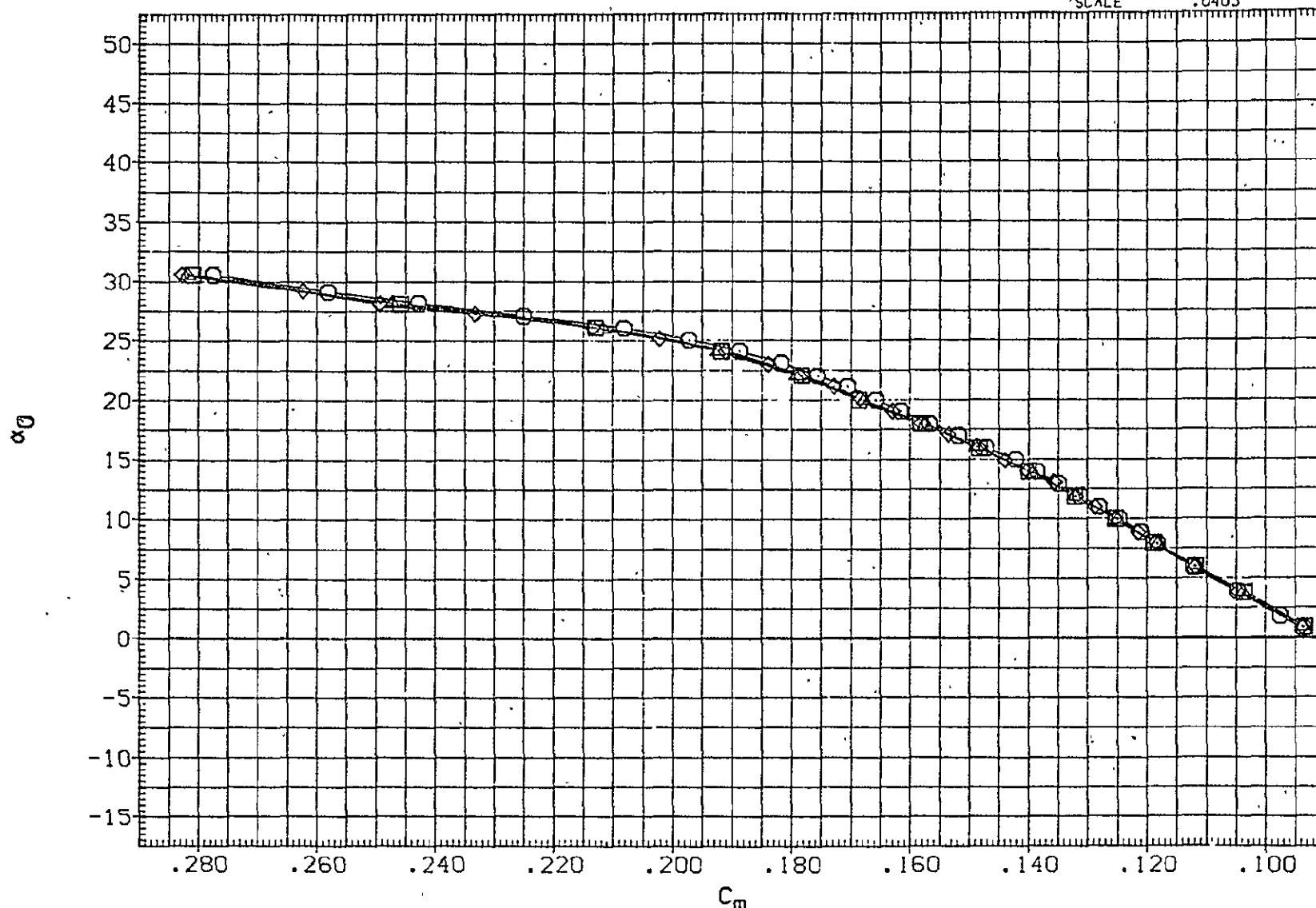


FIG 231 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 20, IORB=6, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |         |
|----------|--------|-----------------------------------|--------|--------|---------|------|-----------------------|-----------|---------|
| (TJF085) | ○      | (CA-8) K3V9.1.2TS5 F20TS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | 50. FT. |
| (TJF082) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | -4.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.     |
| (TJF083) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.     |
| (TJF084) | △      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | .000   | -11.700 | .000 | XMRP                  | 1109.0000 | IN. X0  |
|          |        |                                   |        |        |         |      | YMRP                  | .0000     | IN. Y0  |
|          |        |                                   |        |        |         |      | ZMRP                  | 375.0000  | IN. Z0  |
|          |        |                                   |        |        |         |      | SCALE                 | .0405     |         |

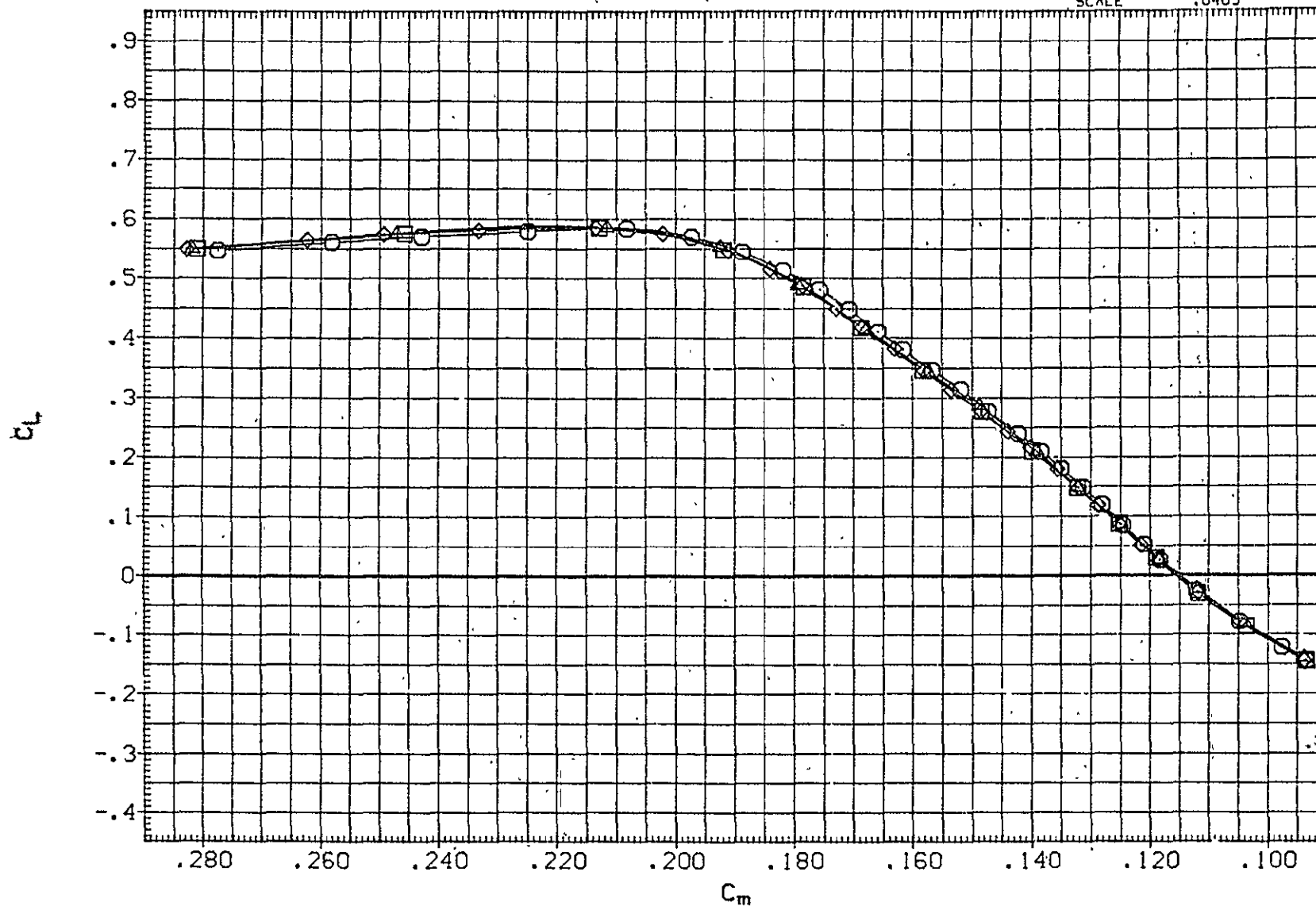


FIG 231 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 20, IOR8=6, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF085) | ○      | (CA-8) K3V9.1.2TSS F20TS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF082) | □      | (CA-8) K3V9.1.2TSSH15.6.1F20TS401 | .000   | -4.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF083) | ◇      | (CA-8) K3V9.1.2TSSH15.6.1F20TS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF084) | △      | (CA-8) K3V9.1.2TSSH15.6.1F20TS401 | .000   | .000   | -11.700 | .000 | XMRP                  | 1109.0000 | IN.XO  |
|          |        |                                   |        |        |         |      | YMRP                  | .0000     | IN.YO  |
|          |        |                                   |        |        |         |      | ZMRP                  | 375.0000  | IN.ZO  |
|          |        |                                   |        |        |         |      | SCALE                 | .0405     |        |

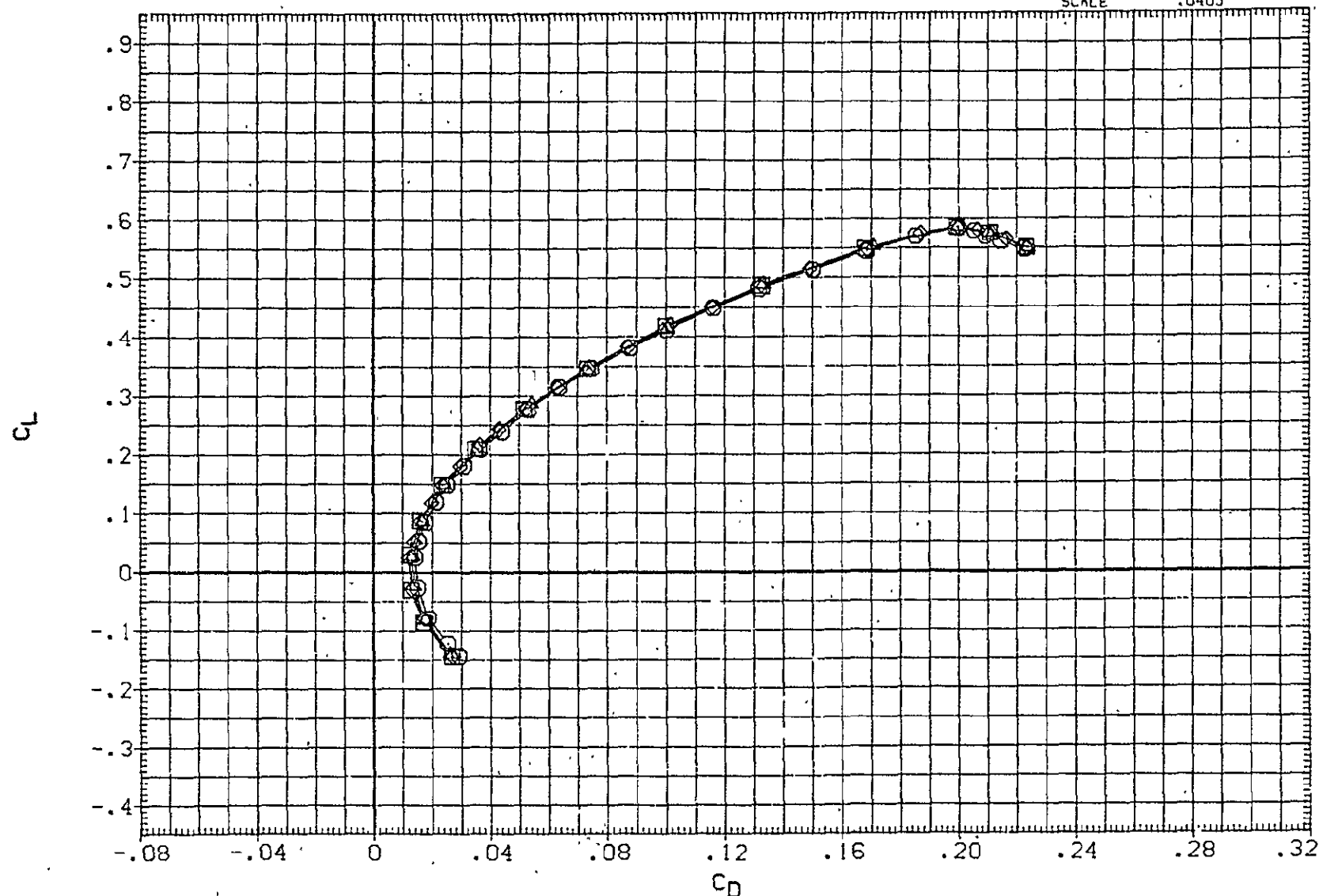


FIG 231 ALT CONFIG. STABILIZER EFFECTIVENESS. FLAPS 20. IORB=6. TC ON,ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |         |
|----------|--------|---|--------|--------|---------|------|-----------------------|-----------|---------|
| (TJF044) | □      | (CA-8) K3V9.1.2TS5 F30G5.3.5TS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | SQ. FT. |
| (TJF047) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | 3.00C  | -11.700 | .000 | LREF                  | 474.8100  | IN.     |
| (TJF046) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | .00C   | -11.700 | .000 | BREF                  | 936.6800  | IN.     |
| (TJF048) | ×      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | -2.00C | -11.700 | .000 | XMRP                  | 1109.0000 | IN. X0  |
| (TJF045) | ▽      | (CA-8) K3V9.1.2TS5.15.6.1F30G5.3.5TS401 | .000   | -4.00C | -11.700 | .000 | YMRP                  | .0000     | IN. Y0  |
|          |        |   |        |        |         |      | ZMRP                  | 375.0000  | IN. Z0  |
|          |        |   |        |        |         |      | SCALE                 | .0405     |         |

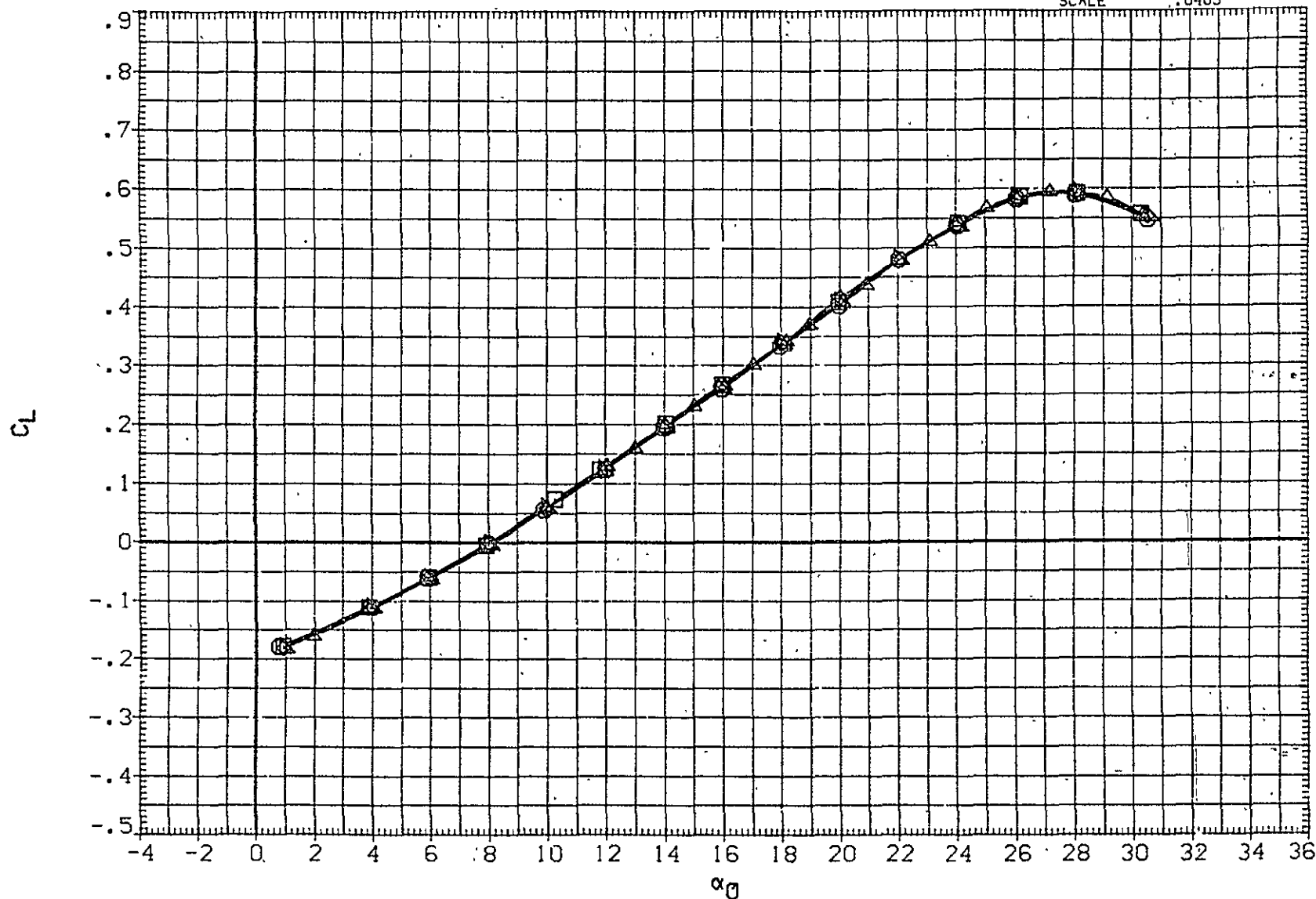


FIG 232 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 30, 10RB=6, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

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| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF044) | ○      | (CA-8) K3V9.1.2TS5 F30G5.3.5TS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | SC.FT. |
| (TJF047) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | 3.000  | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF046) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | .000   | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF048) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | -2.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF045) | ▽      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | -4.000 | -11.700 | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |        |        |         |      | SCALE                 | .0405     |        |

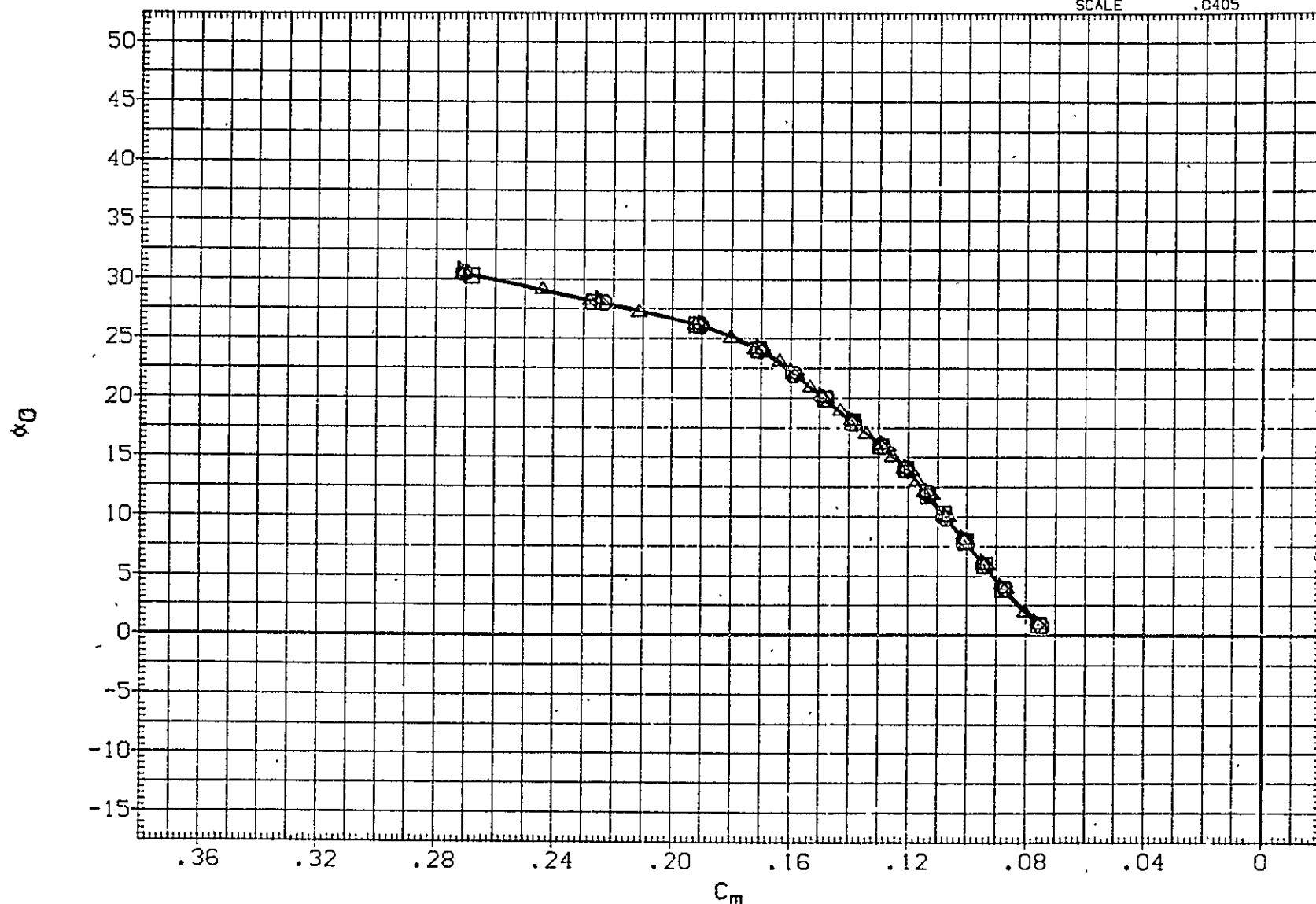


FIG 232 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 30, IORB=6, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF044) | ○      | (CA-8) K3V9.1.2TSS F30G5.3.5TS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF047) | ◇      | (CA-8) K3V9.1.2TSSH15.6.1F30G5.3.5TS401 | .000   | 3.000  | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF046) | ◇      | (CA-8) K3V9.1.2TSSH15.6.1F30G5.3.5TS401 | .000   | .000   | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF048) | △      | (CA-8) K3V9.1.2TSSH15.6.1F30G5.3.5TS401 | .000   | -2.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF045) | △      | (CA-8) K3V9.1.2TSSH15.6.1F30G5.3.5TS401 | .000   | -4.000 | -11.700 | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |        |        |         |      | SCALE                 | .0405     |        |

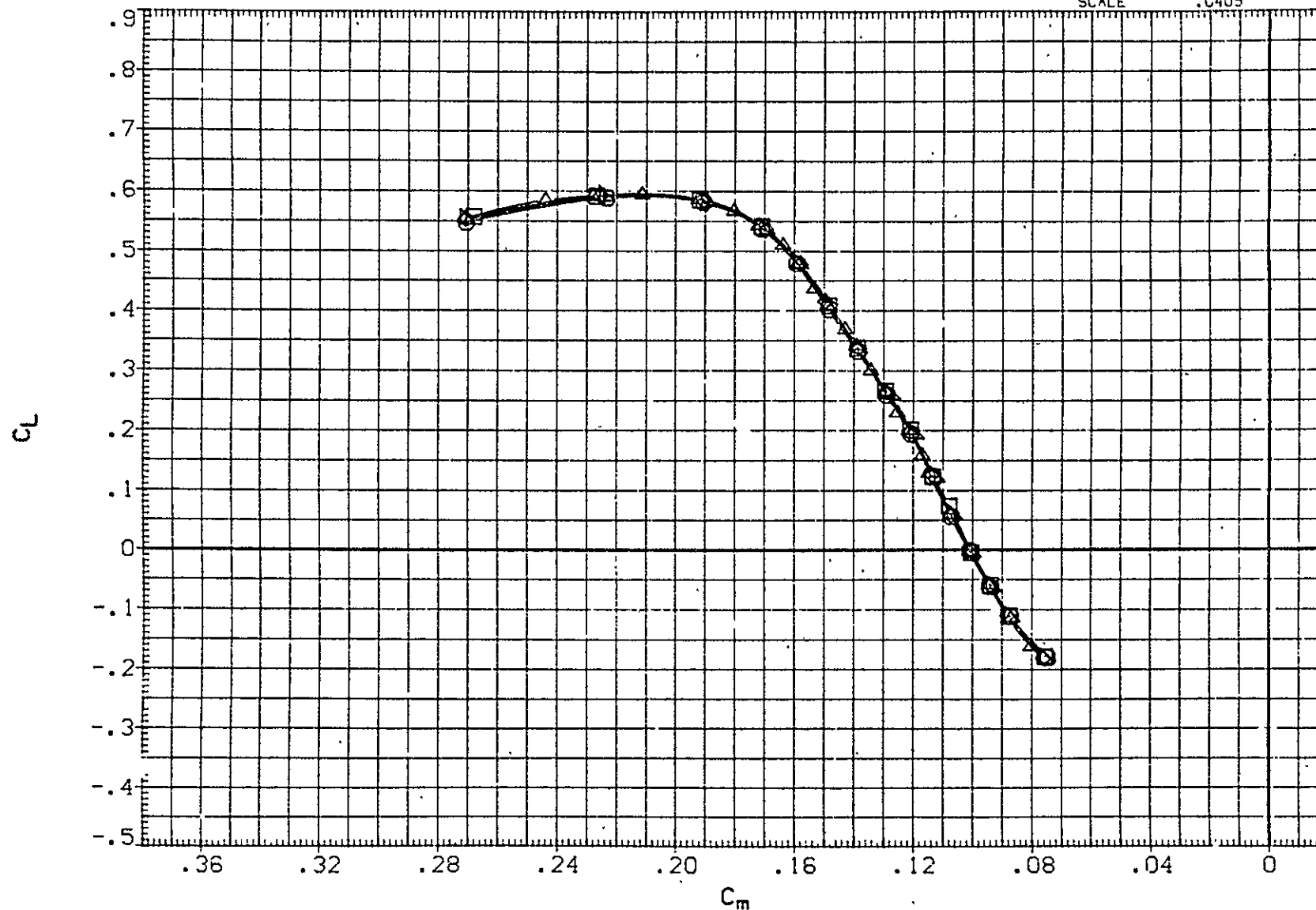


FIG 232 ALT CONFIG. STABILIZER EFFECTIVENESS. FLAPS 30, IORB=6, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF044) | ○      | (CA-8) K3V9.1.2TS5 F30G5.3.5TS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF047) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | 3.000  | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF046) | ×      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | .000   | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF048) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | -2.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF045) | ▽      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | -4.000 | -11.700 | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |        |        |         |      | SCALE                 | .0405     |        |

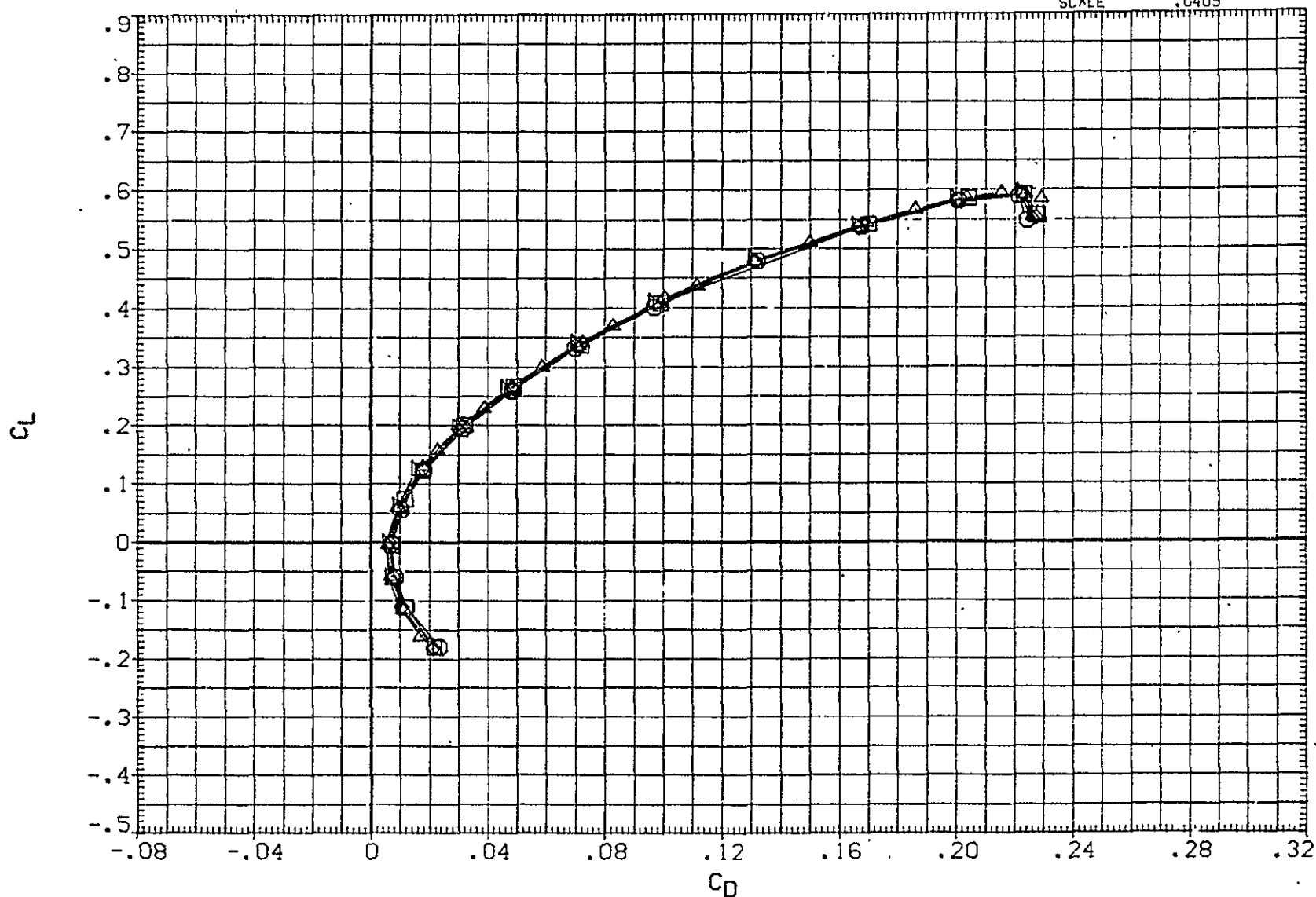


FIG 232 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 30, 10RB=6, TC ON, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF056) | ○      | (CA-8) K3V9.1.2TS5 F30G5.3.5TS401       |        |        |         | .000 | SREF                  | 2690.0000 | SO.FT. |
| (TJF055) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | .000   | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF054) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF053) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | -4.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |   |        |        |         |      | YMRP                  | .0000     | IN.Y0  |
|          |        |   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |        |        |         |      | SCALE                 | .0405     |        |

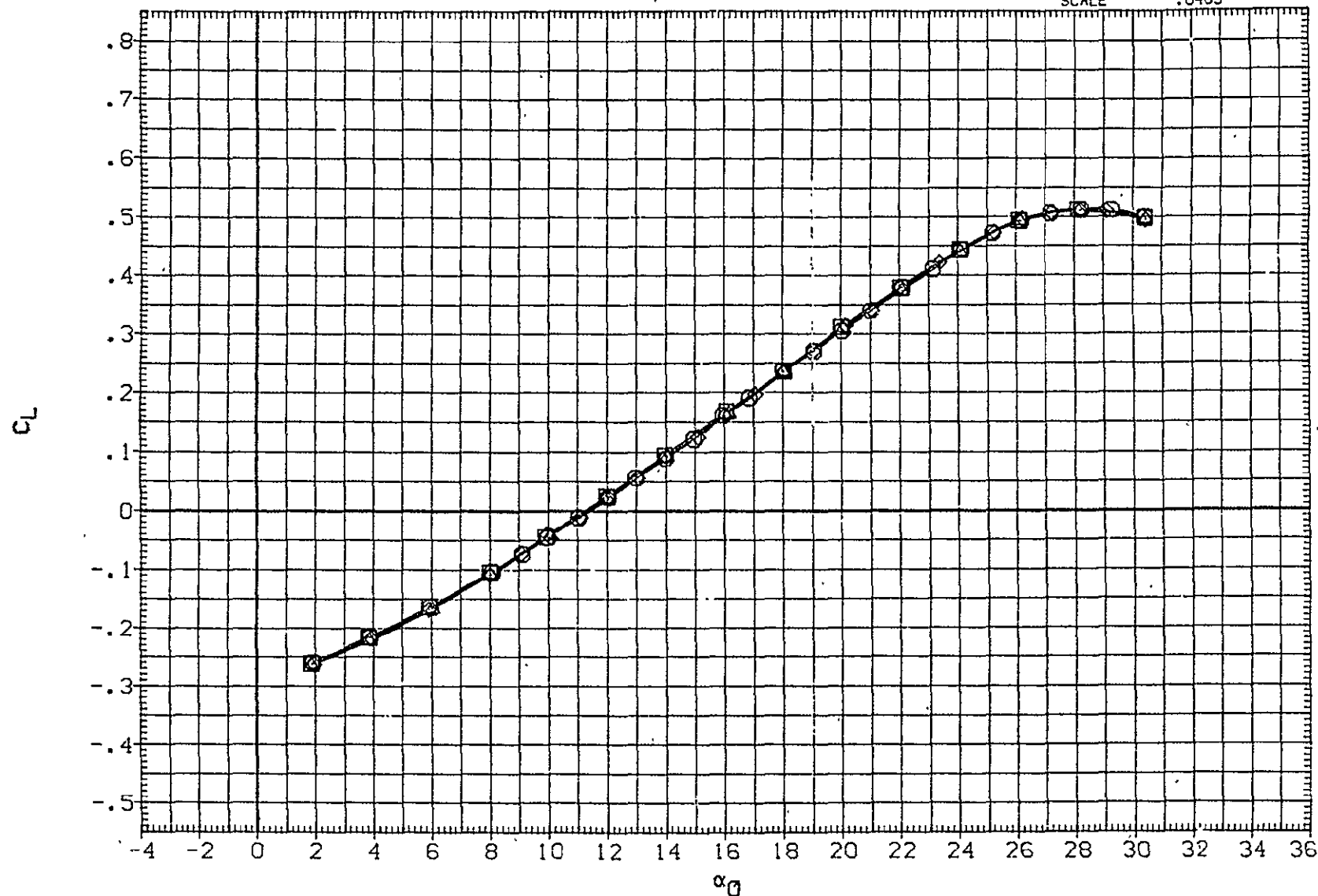


FIG 233 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 30, 10RB=6, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BOFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF056) | ○      | (CA-8) K3V9.1.2TS5 F3065.3.5TS401       | .000   | .000   | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF055) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F3065.3.5TS401 | .000   | .000   | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF054) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F3065.3.5TS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF053) | △      | (CA-8) K3V9.1.2TS5H15.6.1F3065.3.5TS401 | .000   | -4.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |   |        |        |         |      | YMRP                  | .0000     | IN.Y0  |
|          |        |   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |        |        |         |      | SCALE                 | .0405     |        |

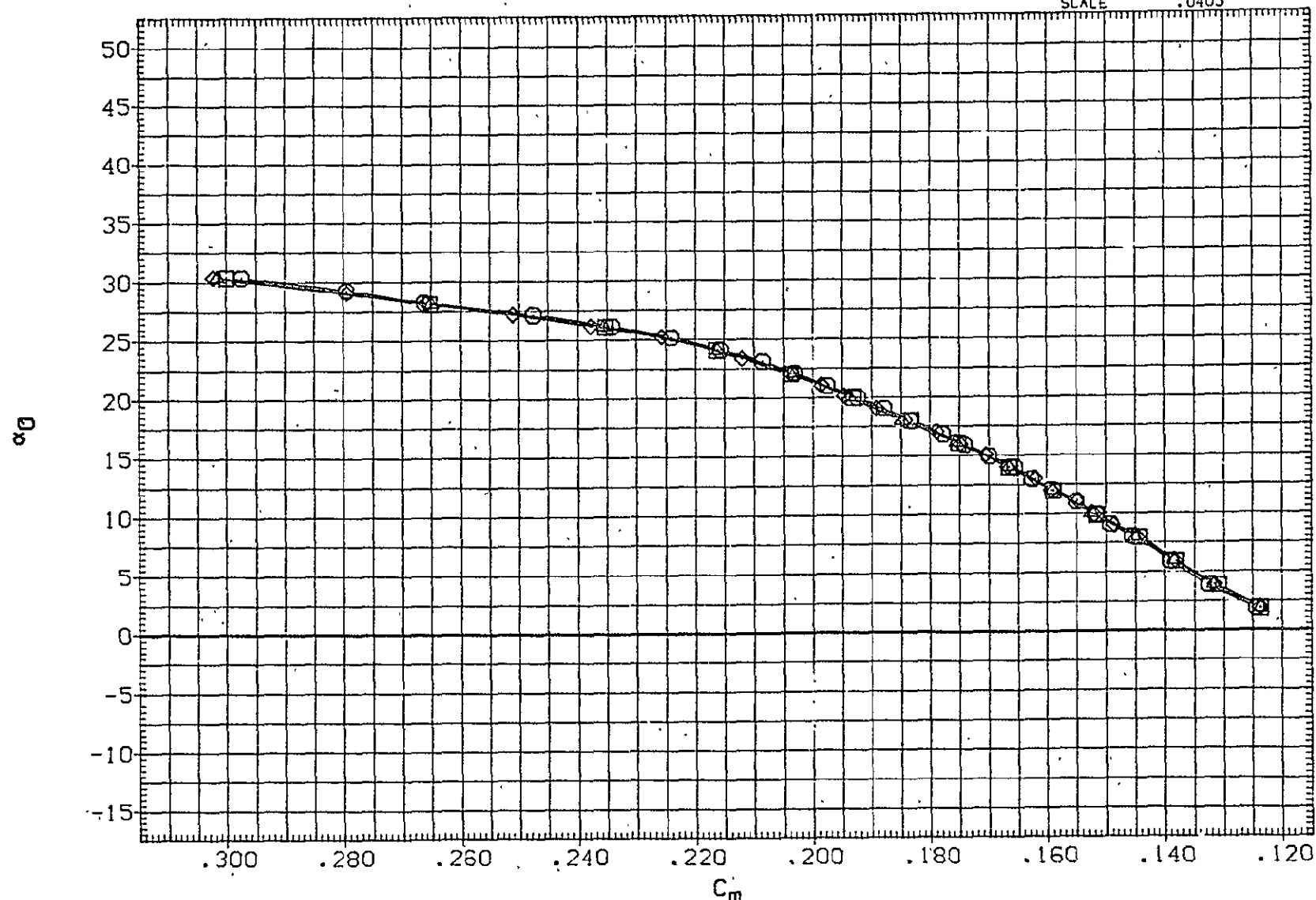


FIG 233 ALT CONFIG. STABILIZER EFFECTIVENESS. FLAPS 30, IORB=6, TC ON.ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               |
|----------|--------|---|
| (TJF056) | ○      | (CA-8) K3V9.1.2TSS F30G5.3.5TS401       |
| (TJF055) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 |
| (TJF054) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 |
| (TJF053) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 |

| ELEVTR | STAB   | BDFLAP  | BFTA |
|--------|--------|---------|------|
| .000   | .000   | -11.700 | .000 |
| .000   | -2.000 | -11.700 | .000 |
| .000   | -4.000 | -11.700 | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | SQ.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN. X0 |
| YMRP                  | .0000     | IN. Y0 |
| ZMRP                  | 375.0000  | IN. Z0 |
| SCALE                 | .0405     |        |

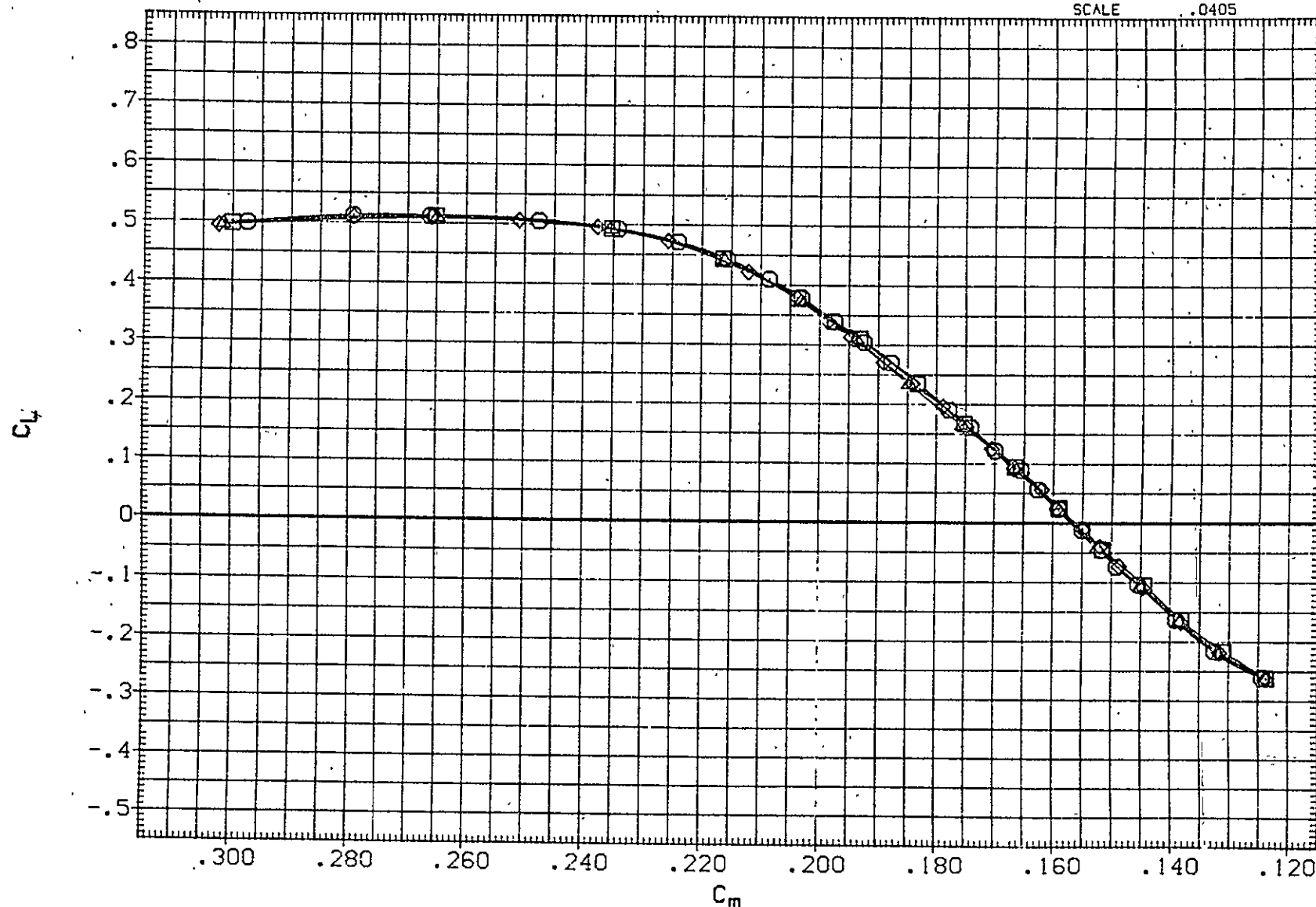


FIG 233 ALT CONFIG. STABILIZER EFFECTIVENESS. FLAPS 30, IORB=6, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

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| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BOFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF056) | □      | (CA-8) K3V9.1.2TS5 F3065.3.5TS401       | .000   | .000   | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF055) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F3065.3.5TS401 | .000   | .000   | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF054) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F3065.3.5TS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF053) | △      | (CA-8) K3V9.1.2TS5H15.6.1F3065.3.5TS401 | .000   | -4.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |   |        |        |         |      | YMPP                  | .0000     | IN.Y0  |
|          |        |   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |        |        |         |      | SCALE                 | .0405     |        |

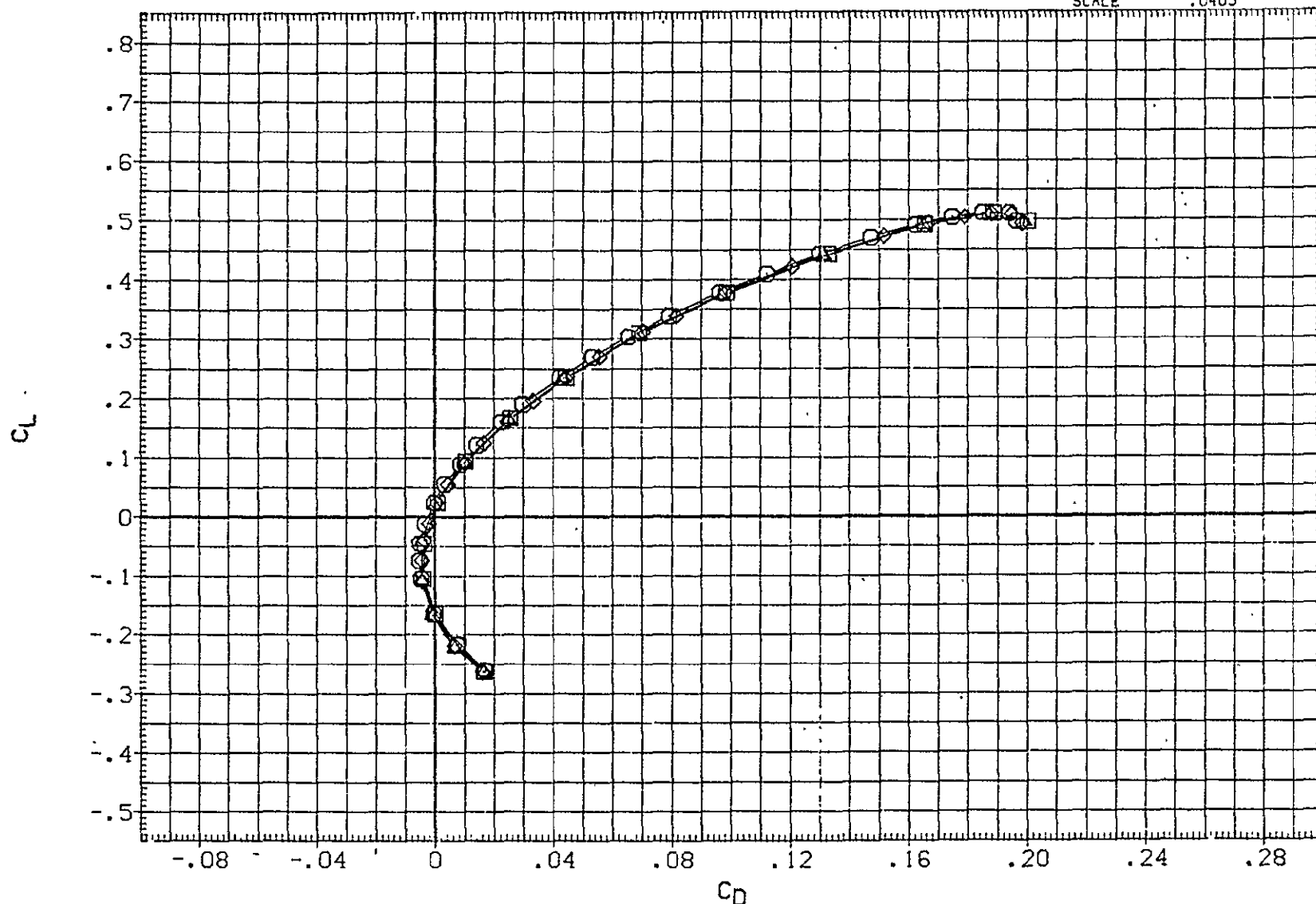


FIG 233 ALT CONFIG. STABILIZER EFFECTIVENESS. FLAPS 30. IORB=6. TC.ON.ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR  | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|---------|--------|---------|------|-----------------------|-----------|--------|
| (TJF049) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | 17.000  | -2.000 | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF050) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | 10.000  | -2.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF054) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000    | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF051) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | -10.000 | -2.000 | -11.700 | .000 | XMPP                  | 1109.0000 | IN.X0  |
| (TJF052) | ▽      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | -23.000 | -2.000 | -11.700 | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |   |         |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |         |        |         |      | SCALE                 | .0405     |        |

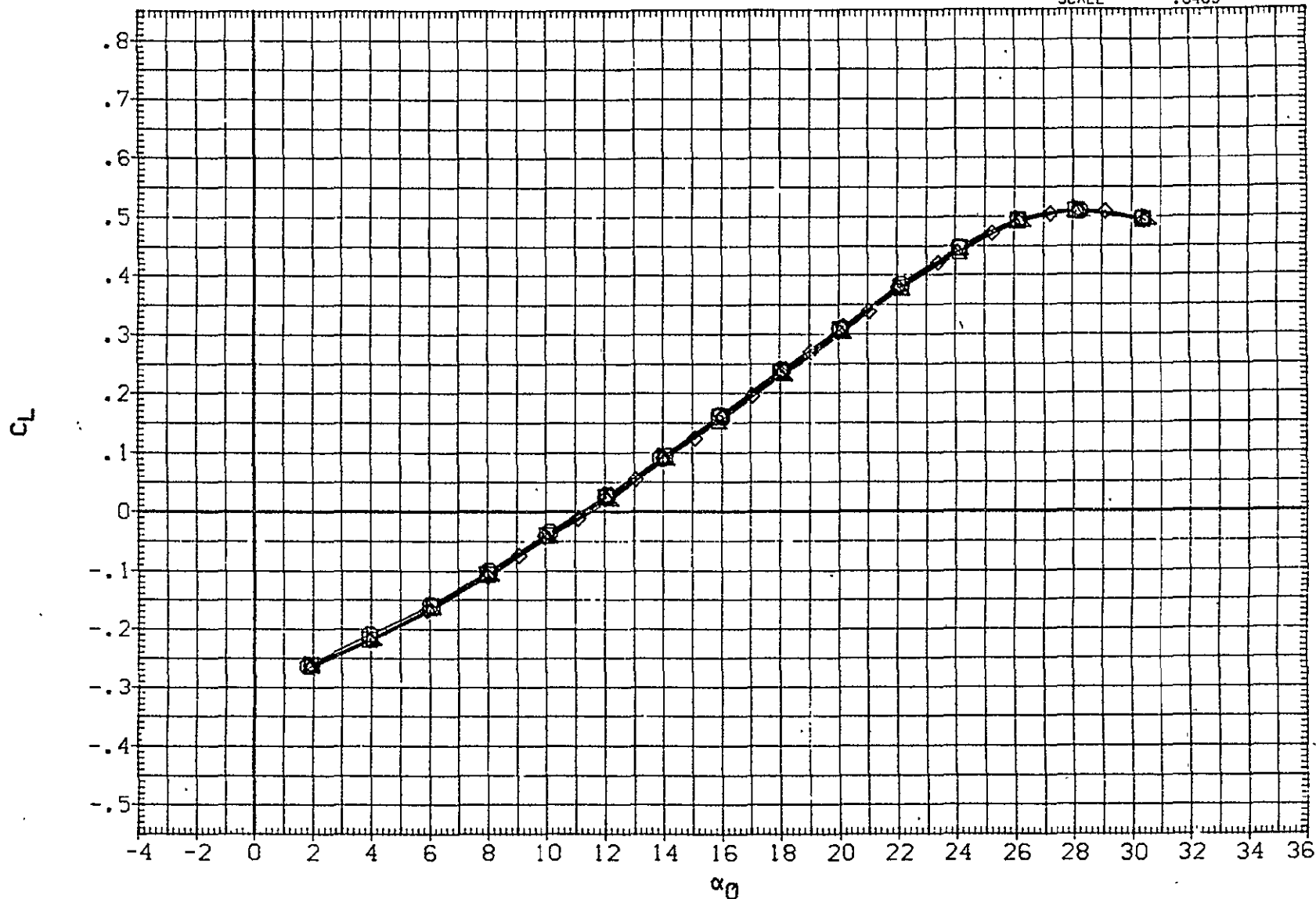


FIG 234 ALT CONFIG. ELEVATOR EFFECTIVENESS. FLAPS 30, IORB=6, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR  | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |         |
|----------|--------|---|---------|--------|---------|------|-----------------------|-----------|---------|
| (TJF049) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | 17.000  | -2.000 | -11.700 | .000 | SREF                  | 2690.0000 | SO. FT. |
| (TJF050) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | 10.000  | -2.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.     |
| (TJF054) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000    | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.     |
| (TJF051) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | -10.000 | -2.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN. X0  |
| (TJF052) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | -23.000 | -2.000 | -11.700 | .000 | YMRP                  | .0000     | IN. Y0  |
|          |        |   |         |        |         |      | ZMRP                  | 375.0000  | IN. Z0  |
|          |        |   |         |        |         |      | SCALE                 | .0405     |         |

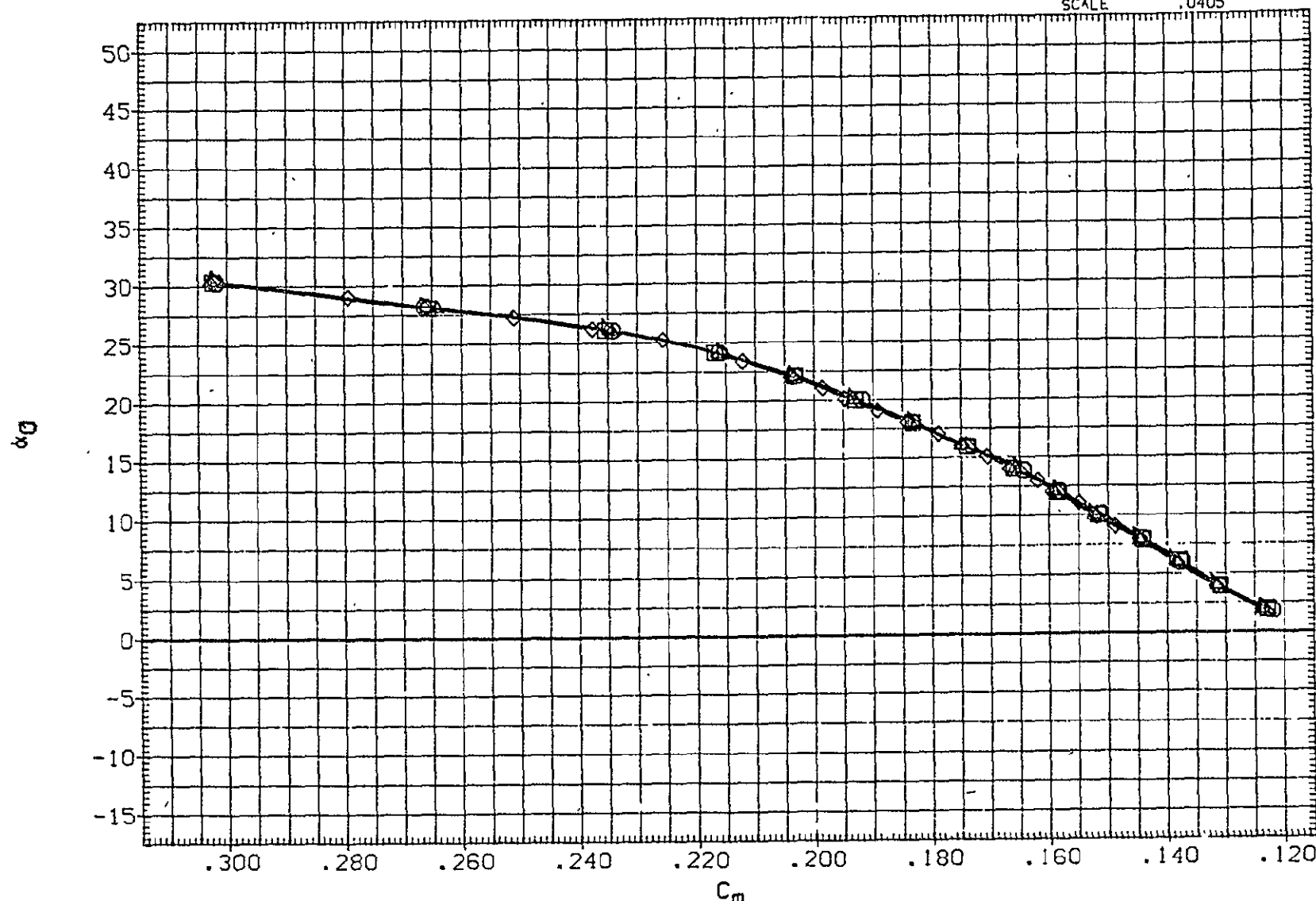


FIG 234 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 30. IORB=6. TC ON. ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR  | STAB   | BDFLAP  | BFTA | REFERENCE INFORMATION |           |         |
|----------|--------|---|---------|--------|---------|------|-----------------------|-----------|---------|
| (TJF049) | ○      | (CA-8) K3V9.1.2TSSH15.6.1F30G5.3.5TS401 | 17.000  | -2.000 | -11.700 | .000 | SREF                  | 2690.0000 | 50. FT. |
| (TJF050) | □      | (CA-8) K3V9.1.2TSSH15.6.1F30G5.3.5TS401 | 10.000  | -2.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.     |
| (TJF054) | ◇      | (CA-8) K3V9.1.2TSSH15.6.1F30G5.3.5TS401 | .000    | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.     |
| (TJF051) | △      | (CA-8) K3V9.1.2TSSH15.6.1F30G5.3.5TS401 | -10.000 | -2.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN. X0  |
| (TJF052) | ▽      | (CA-8) K3V9.1.2TSSH15.6.1F30G5.3.5TS401 | -23.000 | -2.000 | -11.700 | .000 | YMRP                  | .0000     | IN. Y0  |
|          |        |   |         |        |         |      | ZMRP                  | 375.0000  | IN. Z0  |
|          |        |   |         |        |         |      | SCALE                 | .0405     |         |

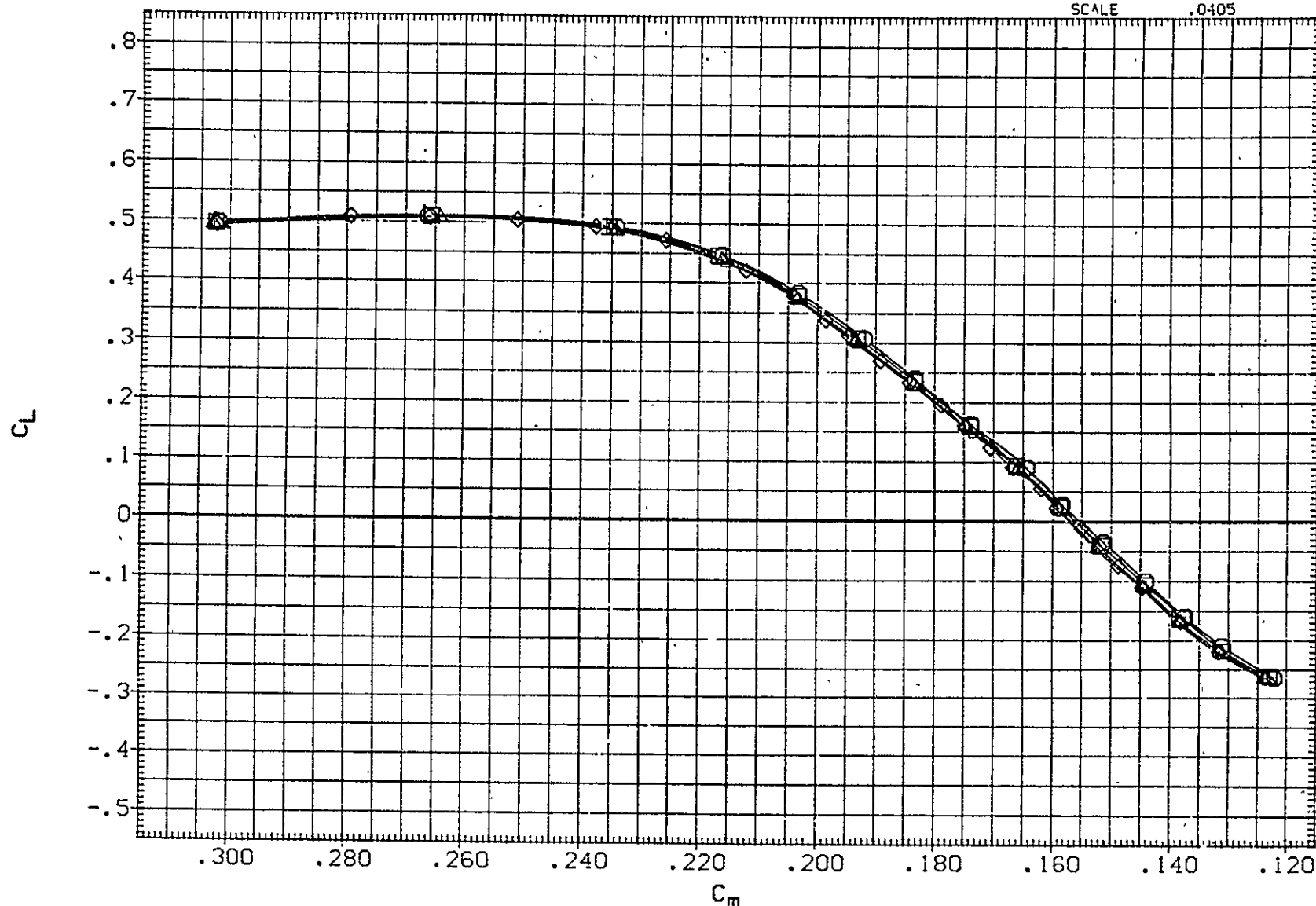


FIG 234 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 30, IORB=6, TC ON, ELEV=-5  
 (A)MACH = .15 ORBITER BALANCE DATA-ALPHA SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR  | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|---------|--------|---------|------|-----------------------|-----------|--------|
| (TJF049) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | 17.000  | -2.000 | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF050) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | 10.000  | -2.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF054) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000    | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF051) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | -10.000 | -2.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF052) | ▽      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | -23.000 | -2.000 | -11.700 | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |   |         |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |         |        |         |      | SCALE                 | .0405     |        |

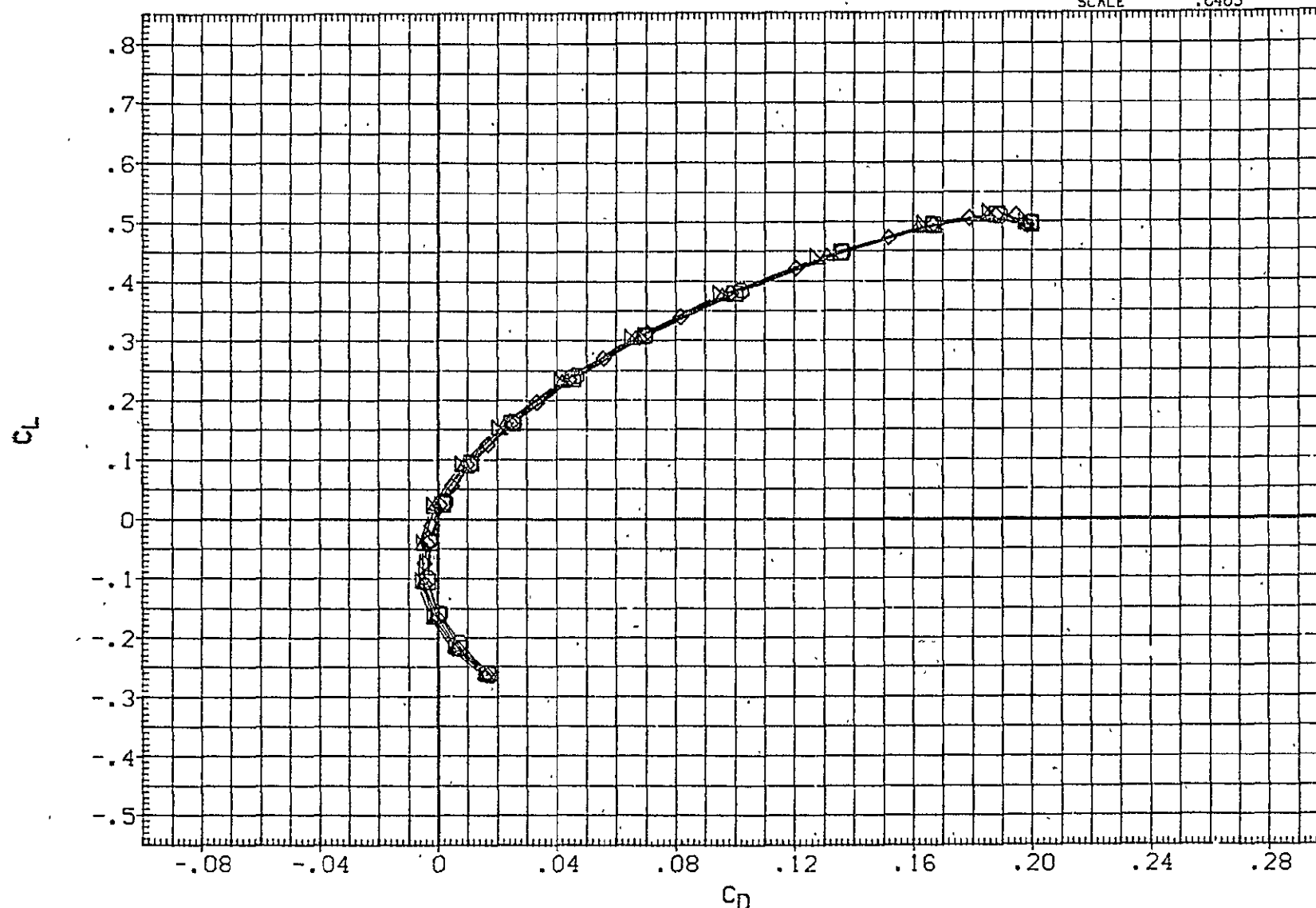


FIG. 234 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 30, IORB=6, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION        |
|----------|--------|----------------------------------|
| (TJF130) | □      | (CA-8) K3V9.1.2TS6 FOTS402       |
| (TJF132) | □      | (CA-8) K3V9.1.2TS6H15.6.1FOTS402 |
| (TJF131) | ◇      | (CA-8) K3V9.1.2TS6H15.6.1FOTS402 |

| ELEVTR | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |                  |
|--------|--------|--------|------|-----------------------|------------------|
|        |        | .000   | .000 | SREF                  | 2690.0000 SQ.FT. |
| .000   | .030   | .000   | .000 | LREF                  | 474.8100 IN.     |
| .000   | -4.000 | .000   | .000 | BREF                  | 936.6800 IN.     |
|        |        |        |      | XMRP                  | 1109.0000 IN. X0 |
|        |        |        |      | YMRP                  | .0000 IN. Y0     |
|        |        |        |      | ZMRP                  | 375.0000 IN. Z0  |
|        |        |        |      | SCALE                 | .0405            |

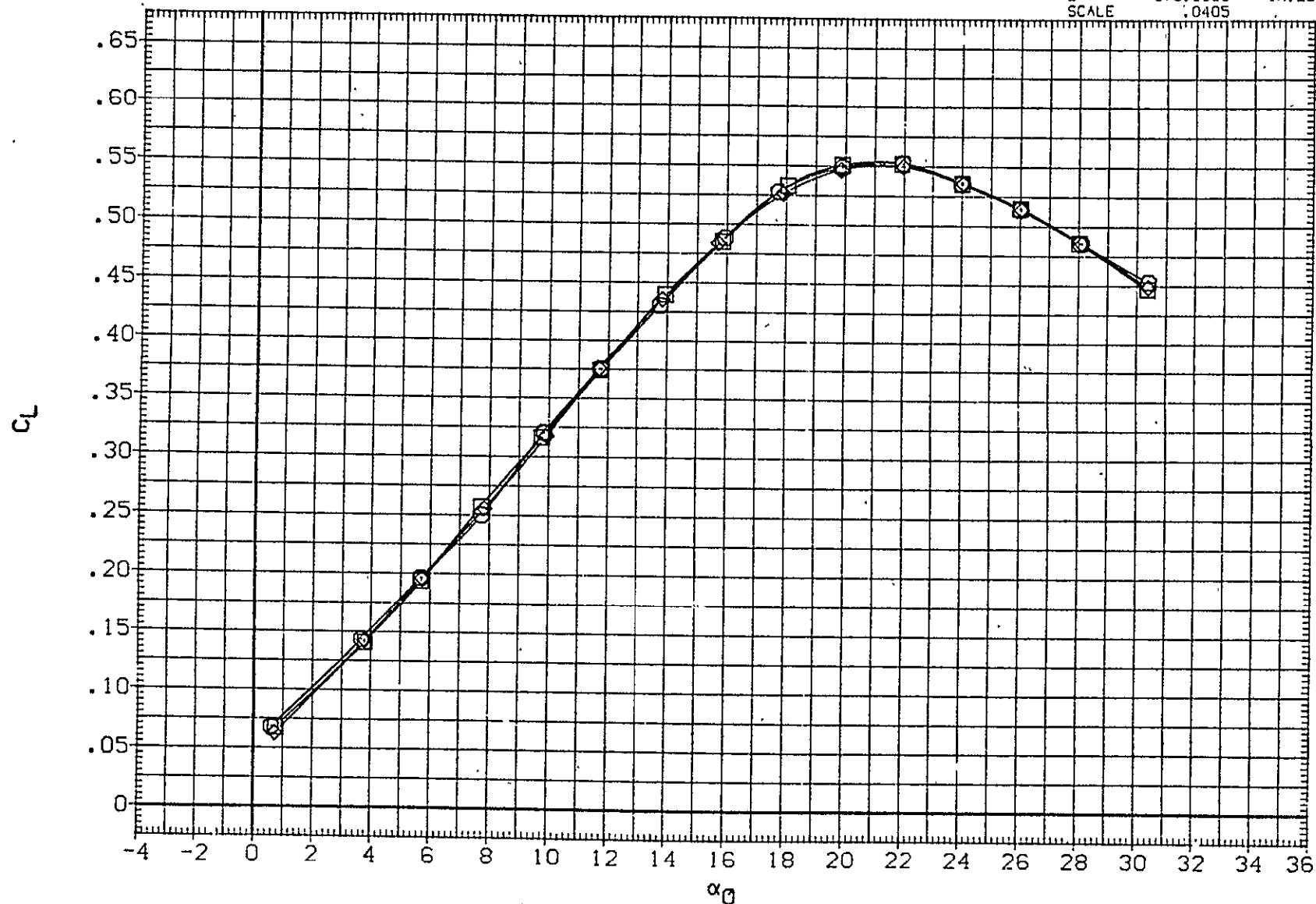


FIG 235 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS UP, IORB=6, TC OFF, ELEV=0  
 ORBITER BALANCE DATA-ALPHA SWEEPS  
 (A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION        | ELEVTR | STAP   | BDFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|----------------------------------|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF130) | ○      | (CA-8) K3V9.1.2TS6 FOTS402       |        |        | .000   | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF132) | □      | (CA-8) K3V9.1.2TS6H15.6.1FOTS402 | .000   | .030   | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF131) | ◇      | (CA-8) K3V9.1.2TS6H15.6.1FOTS402 | .000   | -4.000 | .000   | .000 | BREF                  | 936.6800  | IN.    |
|          |        |                                  |        |        |        |      | XMRP                  | 1109.0000 | IN.X0  |
|          |        |                                  |        |        |        |      | YMRP                  | .0000     | IN.Y0  |
|          |        |                                  |        |        |        |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                  |        |        |        |      | SCALE                 | .0405     |        |

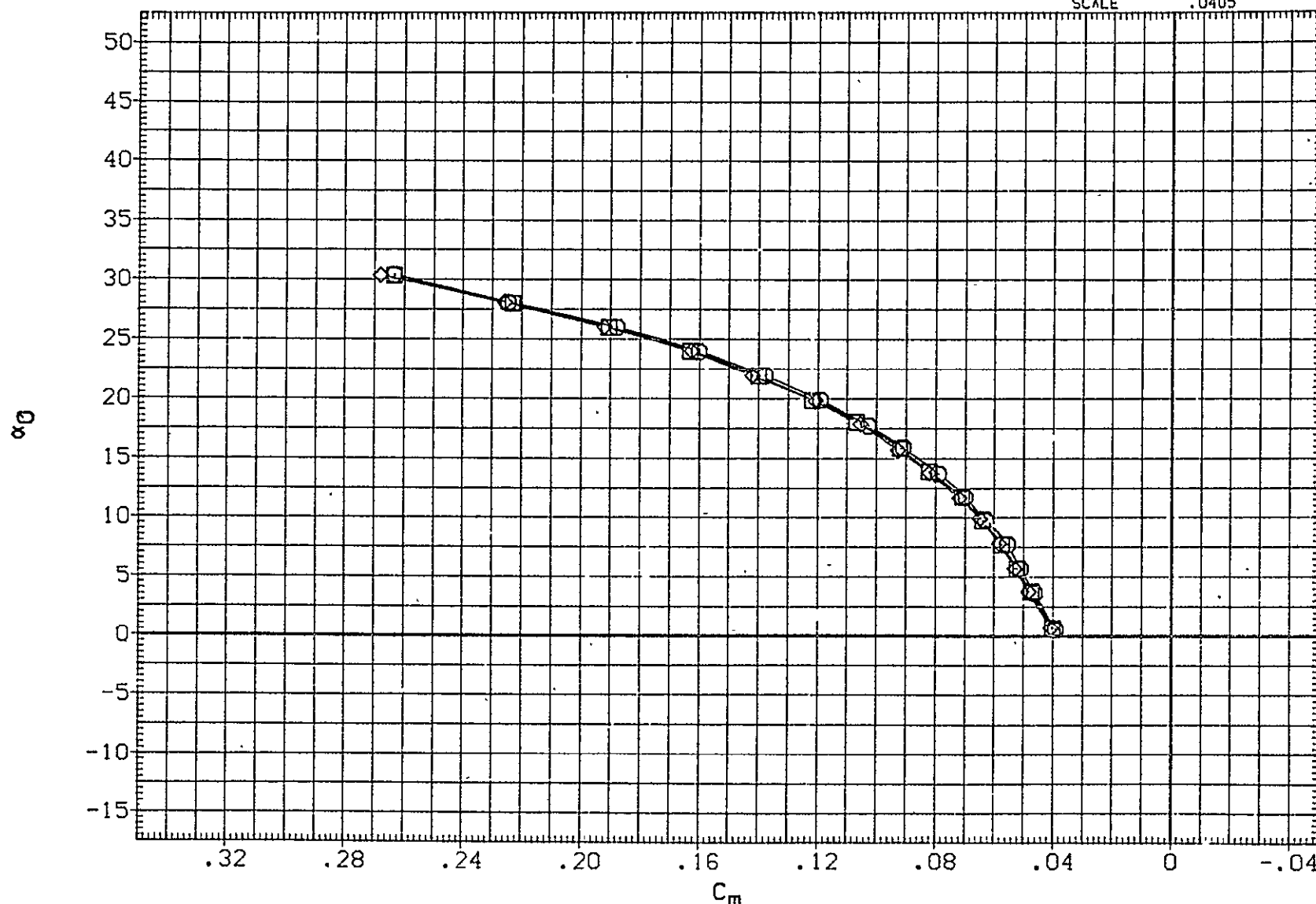


FIG 235 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS UP, IORB=6, TC OFF, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION        | ELEVTR | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|----------------------------------|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF130) | ○      | (CA-8) K3V9.1.2TS6 FOTS402       |        |        | .000   | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF132) | □      | (CA-8) K3V9.1.2TS6H15.6.1FOTS402 | .000   | .000   | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF131) | ◇      | (CA-8) K3V9.1.2TS6H15.6.1FOTS402 | .000   | -4.000 | .000   | .000 | BREF                  | 936.6800  | IN.    |
|          |        |                                  |        |        |        |      | XMRP                  | 1109.0000 | IN.X0  |
|          |        |                                  |        |        |        |      | YMRP                  | .0000     | IN.Y0  |
|          |        |                                  |        |        |        |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                  |        |        |        |      | SCALE                 | .0405     |        |



FIG 235 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS UP, IORB=6, TC OFF, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION        | I,LEVTR | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|----------------------------------|---------|--------|--------|------|-----------------------|-----------|--------|
| (TJF130) | ○      | (CA-8) K3V9.1.2TS6 FOTS402       |         |        | .000   | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF132) | □      | (CA-8) K3V9.1.2TS6H15.6.1FOTS402 | .000    | .000   | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF131) | ◇      | (CA-8) K3V9.1.2TS6H15.6.1FOTS402 | .000    | -4.000 | .000   | .000 | BREF                  | 936.6800  | IN.    |
|          |        |                                  |         |        |        |      | XMRP                  | 1109.0000 | IN, X0 |
|          |        |                                  |         |        |        |      | YMRP                  | .0000     | IN, Y0 |
|          |        |                                  |         |        |        |      | ZMRP                  | 375.0000  | IN, Z0 |
|          |        |                                  |         |        |        |      | SCALE                 | .0405     |        |

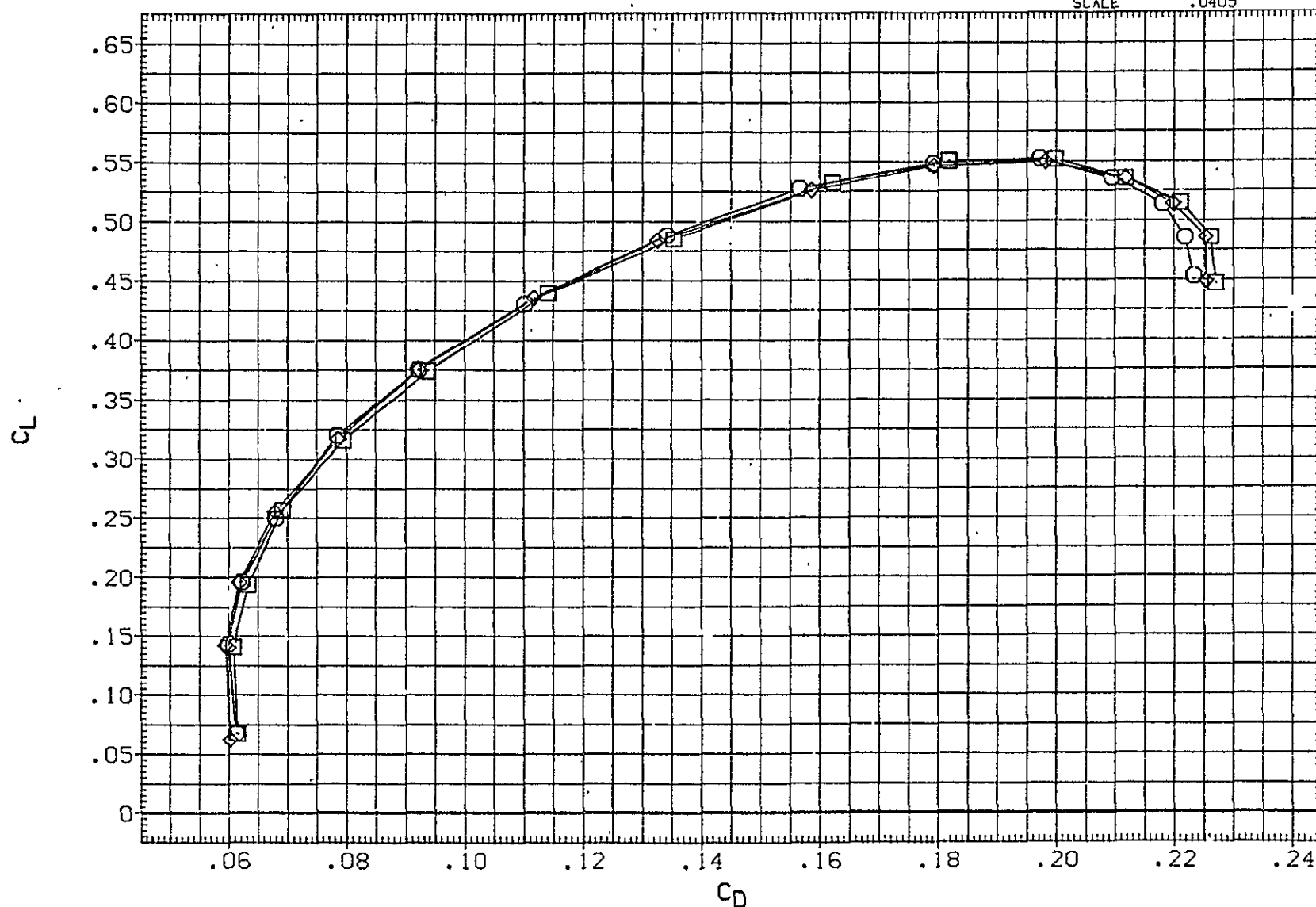


FIG 235 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS UP, IORB=6, TC OFF, ELEV=0  
ORBITER BALANCE DATA-ALPHA SWEEPS

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(TJF105) (CA-8) K2V9.1.2TS5F30G5.3.5TS401  
 (TJF108) (CA-8) K3V9.1.2TS5H15.6.1F10TS402  
 (TJF107) (CA-8) K3V9.1.2TS5H15.6.1F10TS402  
 (TJF106) (CA-8) K3V9.1.2TS5H15.6.1F10TS402

ELEVTR

STAB

BDFLAP

BETA

REFERENCE INFORMATION

|      |        |      |      |       |           |         |
|------|--------|------|------|-------|-----------|---------|
| .000 | 2.000  | .000 | .000 | SREF  | 2690.0000 | 50. FT. |
| .000 | .000   | .000 | .000 | LREF  | 474.8100  | IN.     |
| .000 | -2.000 | .000 | .000 | BREF  | 936.6800  | IN.     |
|      |        |      |      | XMRP  | 1109.0000 | IN. X0  |
|      |        |      |      | YMRP  | .0000     | IN. Y0  |
|      |        |      |      | ZMRP  | 375.0000  | IN. Z0  |
|      |        |      |      | SCALE | .0405     |         |

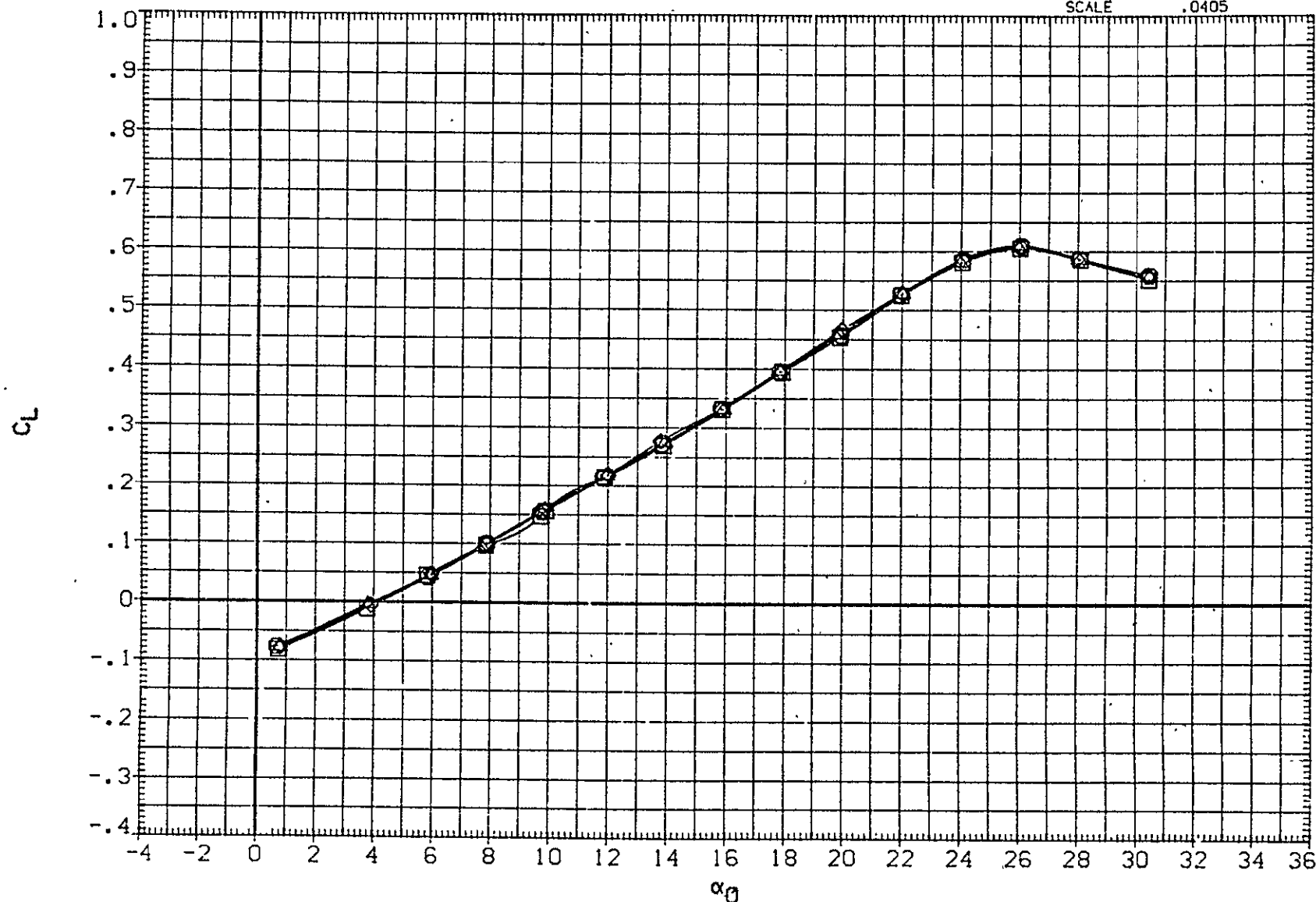


FIG 236 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 10, 10RB=6, TC OFF, ELEV=-5  
 ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF105) | ○      | (CA-8) K2V9.1.2TS5F30G5.3.STS401  |        |        | .000   | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF108) | □      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 | .000   | 2.000  | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF107) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 | .000   | .000   | .000   | .000 | BREF                  | 936.6800  | IN.    |
| (TJF106) | △      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 | .000   | -2.000 | .000   | .000 | XMRP                  | 1109.0000 | IN. X0 |
|          |        |                                   |        |        |        |      | YMRP                  | .0000     | IN. Y0 |
|          |        |                                   |        |        |        |      | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                   |        |        |        |      | SCALE                 | .0405     |        |

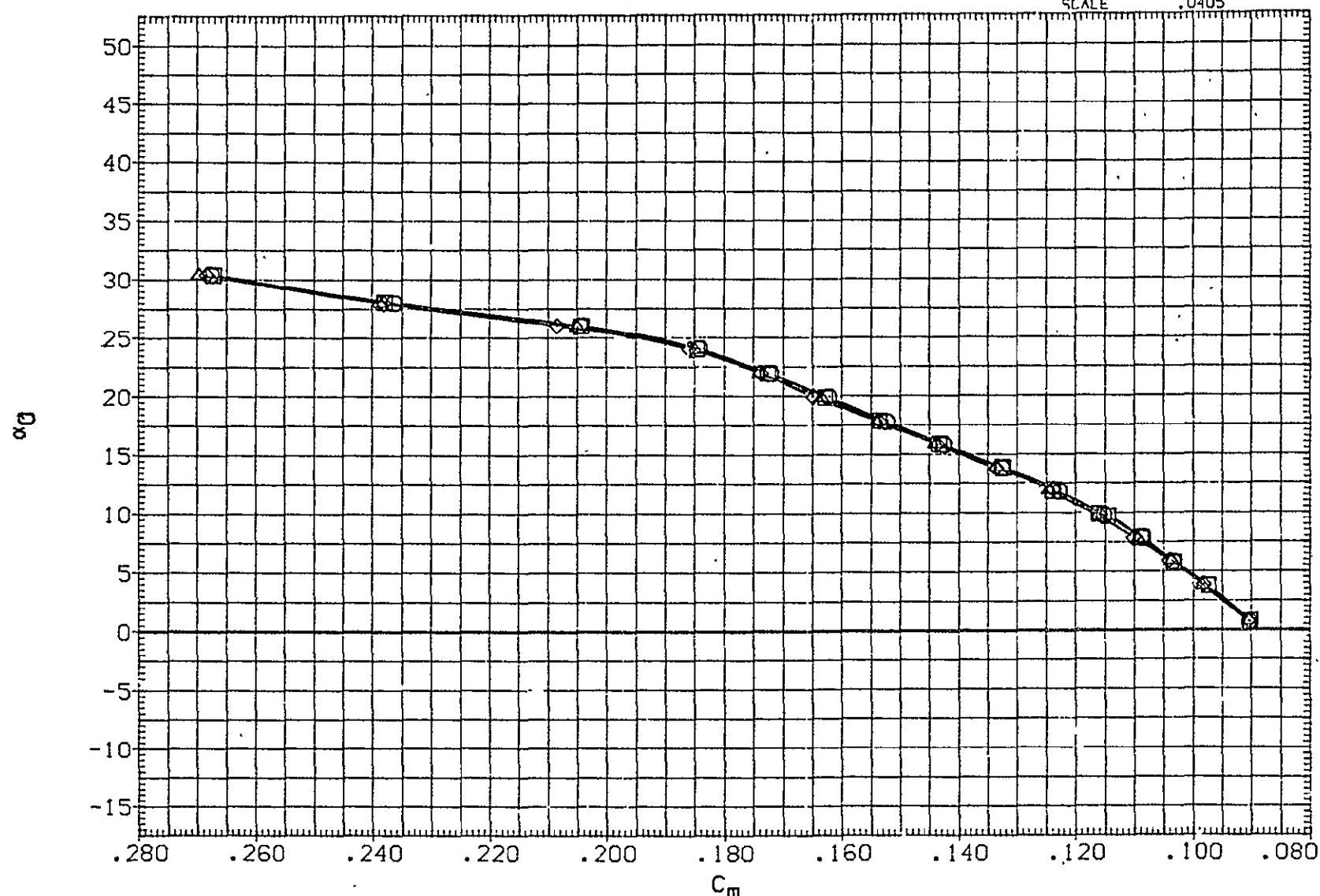


FIG 236 ALT CONFIG. STABILIZER EFFECTIVENESS. FLAPS 10, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | ST/B   | BDFLAP | BFTA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF105) | ○      | (CA-8) K2V9.1.2TSSF30G5.3.5TS401  |        |        | .000   | .000 | SREF                  | 2690.0000 | SG.FT. |
| (TJF108) | □      | (CA-8) K3V9.1.2TSSH15.6.1FI0TS402 | .000   | 2.000  | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF107) | ◇      | (CA-8) K3V9.1.2TSSH15.6.1FI0TS402 | .000   | .000   | .000   | .000 | BREF                  | 936.6800  | IN.    |
| (TJF106) | △      | (CA-8) K3V9.1.2TSSH15.6.1FI0TS402 | .000   | -2.000 | .000   | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |                                   |        |        |        |      | YMRP                  | .0000     | IN.Y0  |
|          |        |                                   |        |        |        |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                   |        |        |        |      | SCALE                 | .0405     |        |

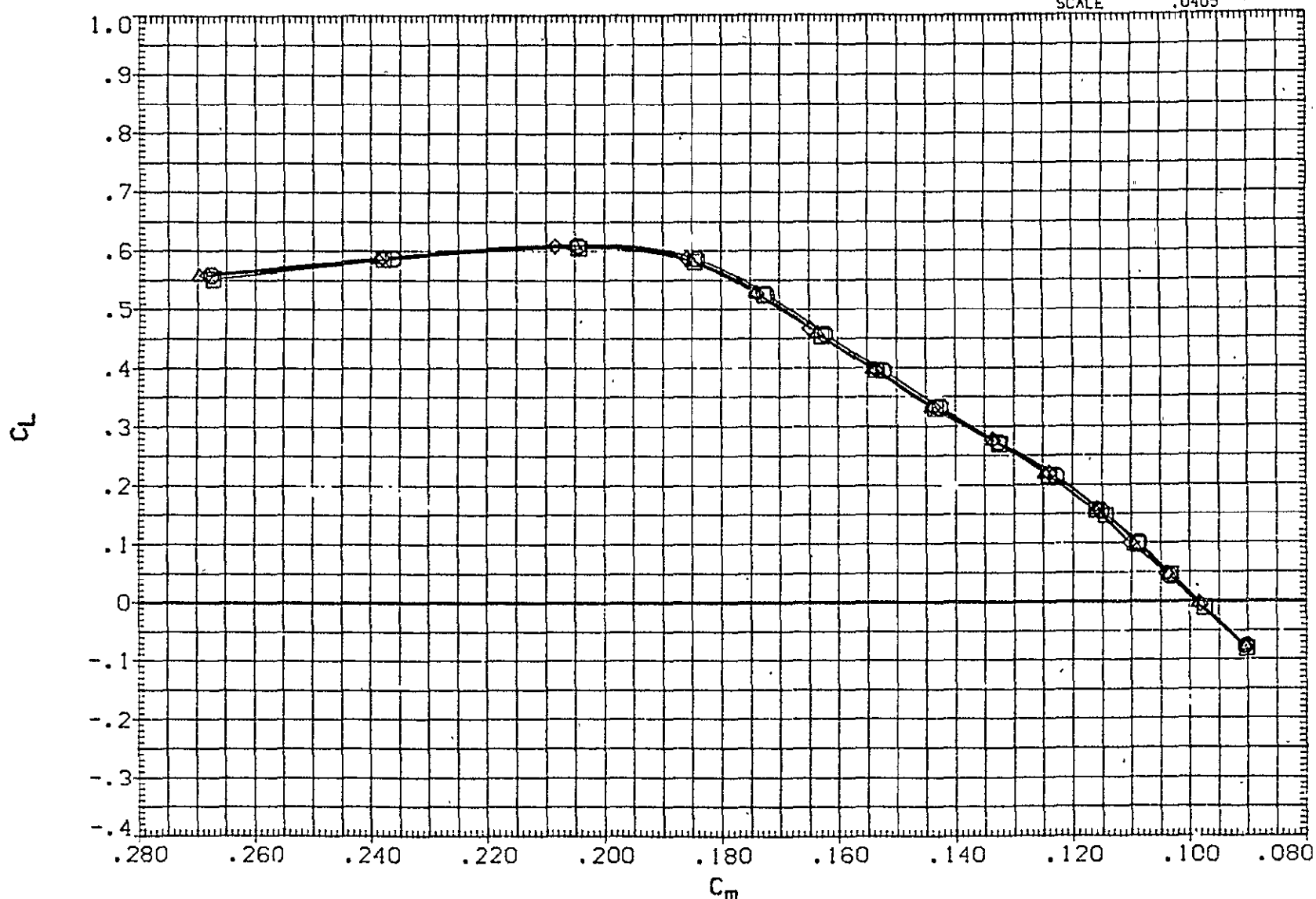


FIG 236 ALT CONFIG. STABILIZER EFFECTIVENESS. FLAPS 10. IORB=6.TC OFF. ELEV=-5  
 ORBITER BALANCE DATA-ALPHA SWEEPS  
 (A)MACH = .15

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF105) | ○      | (CA-8) K2V9.1.2TS5F30G5.3.5TS401  |        |        | .000   | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF108) | □      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 | .000   | 2.000  | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF107) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 | .000   | .000   | .000   | .000 | BREF                  | 936.6800  | IN.    |
| (TJF106) | △      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 | .000   | -2.300 | .000   | .000 | XMRP                  | 1109.0000 | IN. X0 |
|          |        |                                   |        |        |        |      | YMRP                  | .0000     | IN. Y0 |
|          |        |                                   |        |        |        |      | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                   |        |        |        |      | SCALE                 | .0405     |        |

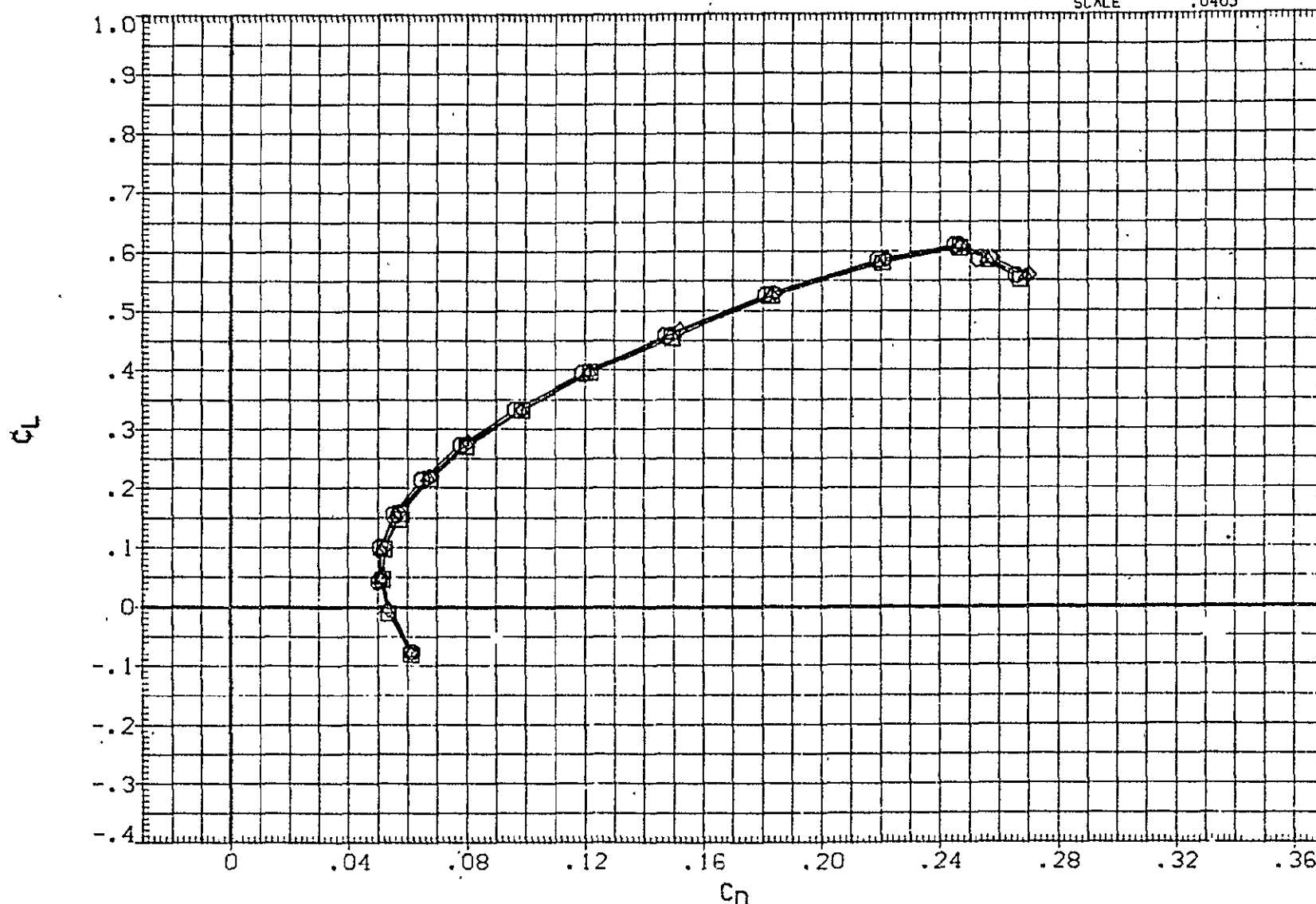


FIG 236 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 10, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR  | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|---------|--------|--------|------|-----------------------|-----------|--------|
| (TJF104) | □      | (CA-8) K3V9.1.2TSSH15.6.1F10TS402 | 17.000  | -2.000 | .000   | .000 | SREF                  | 2090.0000 | SO.FT. |
| (TJF106) | ◇      | (CA-8) K3V9.1.2TSSH15.6.1F10TS402 | .000    | -2.000 | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF103) | ◇      | (CA-8) K3V9.1.2TSSH15.6.1F10TS402 | -23.000 | -2.000 | .000   | .000 | BREF                  | 936.6800  | IN.    |
|          |        |                                   |         |        |        |      | XMRP                  | 1109.0000 | IN.Y0  |
|          |        |                                   |         |        |        |      | YMRP                  | .0000     | IN.Y0  |
|          |        |                                   |         |        |        |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                   |         |        |        |      | SCALE                 | .0405     |        |

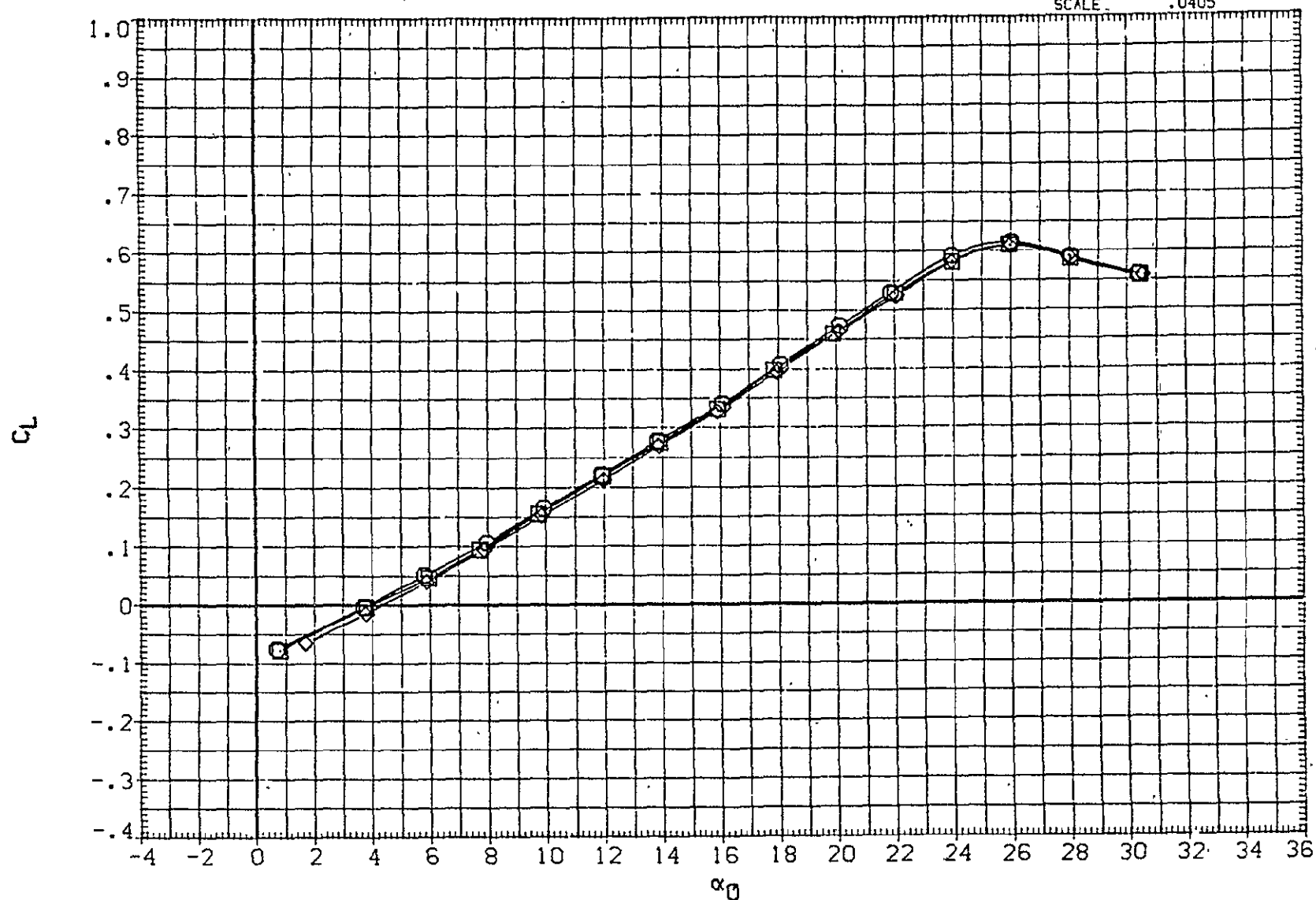


FIG 237 ALT CONFIG. ELEVATOR EFFECTIVENESS. FLAPS 10. ICRB=6.TC OFF. ELEV=-5.  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR  | STAB   | BDFLAP | BFTA | REFERENCE INFORMATION |           |         |
|----------|--------|-----------------------------------|---------|--------|--------|------|-----------------------|-----------|---------|
| (TJF104) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 | 17.000  | -2.000 | .000   | .000 | SREF                  | 2690.0000 | 50. FT. |
| (TJF106) | □      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 | .000    | -2.000 | .000   | .000 | LREF                  | 474.8100  | IN.     |
| (TJF103) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 | -23.000 | -2.000 | .000   | .000 | BREF                  | 936.6800  | IN.     |
|          |        |                                   |         |        |        |      | XMRP                  | 1109.0000 | IN. X0  |
|          |        |                                   |         |        |        |      | YMRP                  | .0000     | IN. Y0  |
|          |        |                                   |         |        |        |      | ZMRP                  | 375.0000  | IN. Z0  |
|          |        |                                   |         |        |        |      | SCALE                 | .0405     |         |

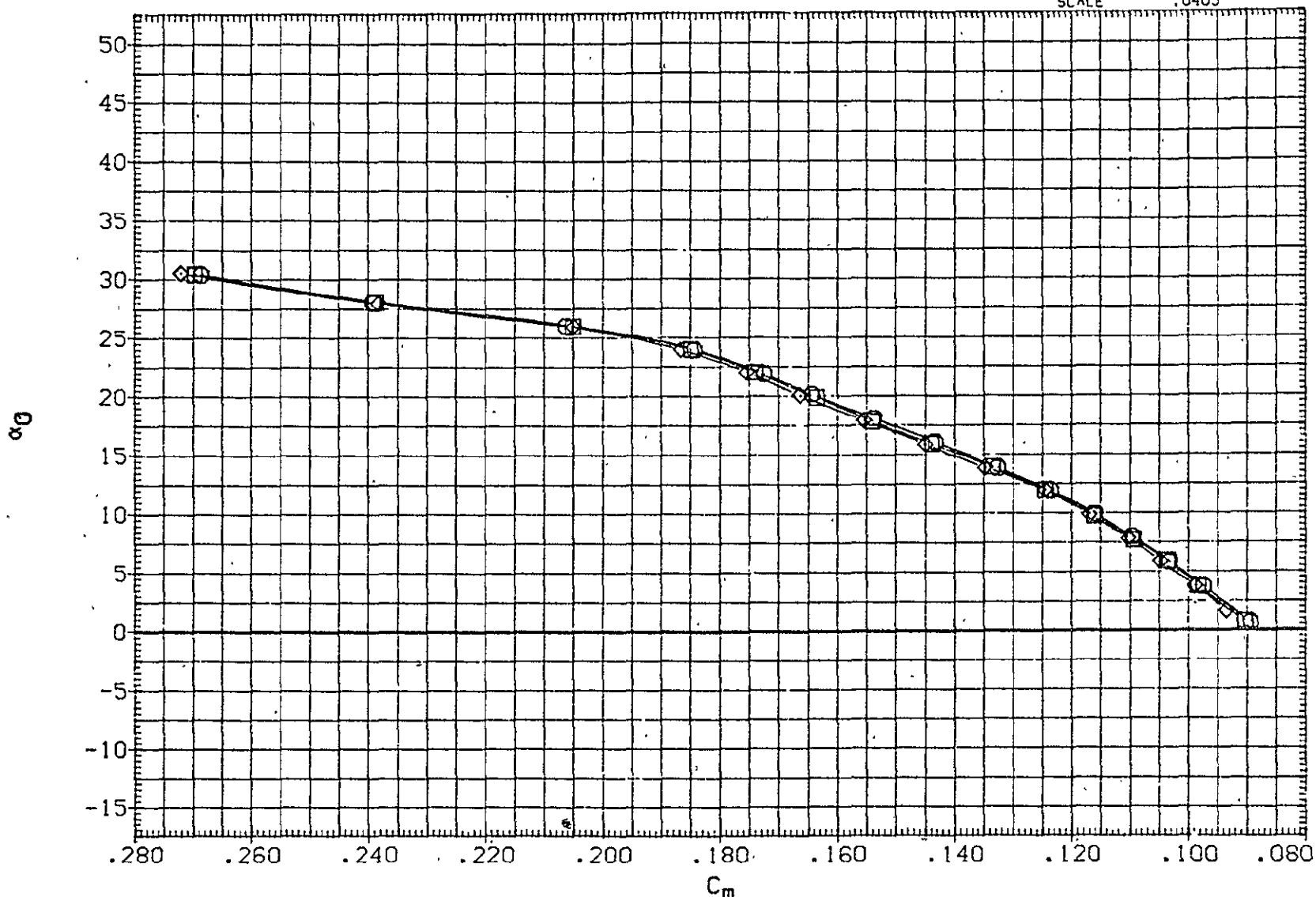


FIG. 237 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 10, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR  | STAB   | BDFLAP | BFTA | REFERENCE INFORMATION |                  |
|----------|--------|-----------------------------------|---------|--------|--------|------|-----------------------|------------------|
| (TJF104) | ○      | (CA-8) K3V9.1.2TSSH15.6.1F10TS402 | 17.000  | -2.000 | .000   | .000 | SREF                  | 2690.0000 SO.FT. |
| (TJF106) | □      | (CA-8) K3V9.1.2TSSH15.6.1F10TS402 | .000    | -2.000 | .000   | .000 | LREF                  | 474.8100 IN.     |
| (TJF103) | ◇      | (CA-8) K3V9.1.2TSSH15.6.1F10TS402 | -23.000 | -2.000 | .000   | .000 | BREF                  | 936.6800 IN.     |
|          |        |                                   |         |        |        |      | XMRRP                 | 1109.0000 IN.XO  |
|          |        |                                   |         |        |        |      | YMRRP                 | .0000 IN.YO      |
|          |        |                                   |         |        |        |      | ZMRRP                 | 375.0000 IN.ZO   |
|          |        |                                   |         |        |        |      | SCALE                 | .0405            |

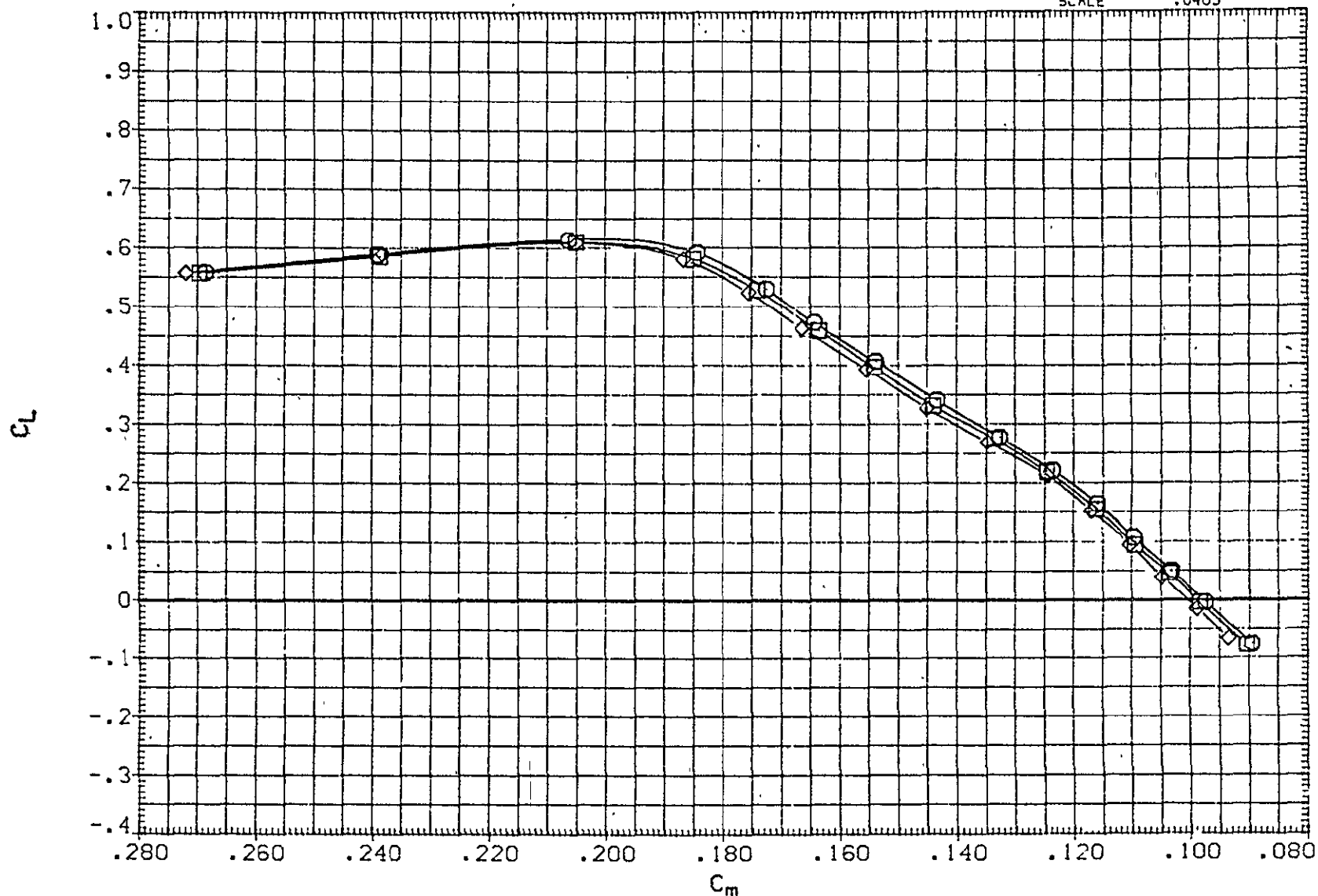


FIG 237 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 10, 10RB=6, TC OFF, ELEV=-5  
 ORBITER BALANCE DATA-ALPHA SWEEPS  
 (A) MACH = .15 PAGE 802

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         |
|----------|--------|-----------------------------------|
| (TJF104) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 |
| (TJF106) | □      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 |
| (TJF103) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 |

| ELEVTR  | STAB   | BDFLAP | BFTA |
|---------|--------|--------|------|
| 17.000  | -2.000 | .000   | .000 |
| .000    | -2.000 | .000   | .000 |
| -23.000 | -2.000 | .000   | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | SC.FT. |
| LREF                  | 474.8100  | IN.    |
| BPEF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN. X0 |
| YMRP                  | .0000     | IN. Y0 |
| ZMRP                  | 375.0000  | IN. Z0 |
| SCALE                 | .0405     |        |

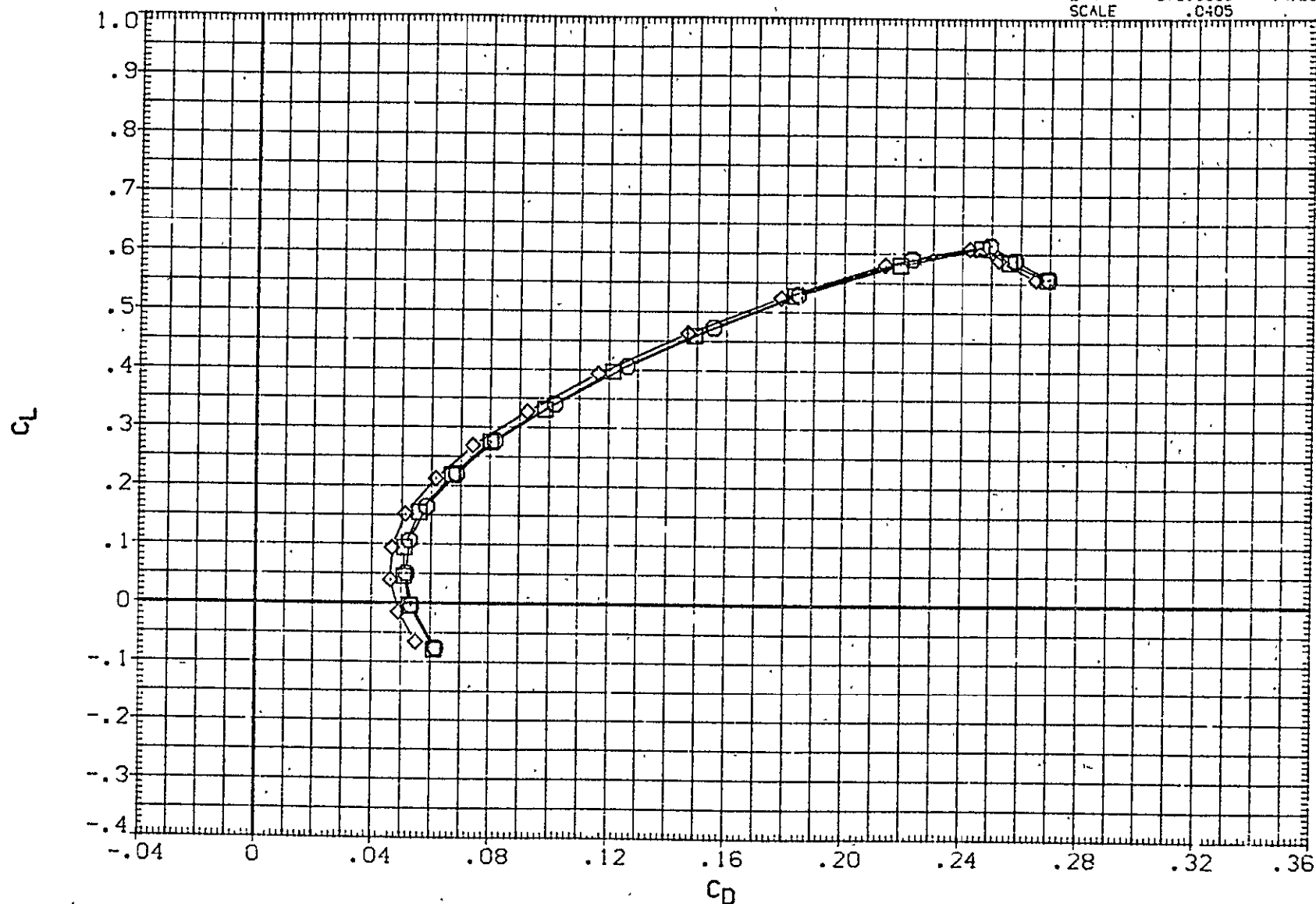


FIG 237 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 10, IORB=6, TC OFF, ELEV=-5  
 ORBITER BALANCE DATA-ALPHA SWEEPS  
 (A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB | BDFLAP | BFTA | REFERENCE INFORMATION |           |         |
|----------|--------|---|--------|------|--------|------|-----------------------|-----------|---------|
| (TJF109) | ○      | (CA-8) K3V9.1.2TS5H1S.6.1F10TS40265.3.5 | .000   | .000 | .000   | .000 | SREF                  | 2690.0000 | 50. FT. |
| (TJF107) | □      | (CA-8) K3V9.1.2TS5H1S.6.1F10TS402       | .000   | .100 | .000   | .000 | LREF                  | 474.8100  | IN.     |
|          |        |   |        |      |        |      | BREF                  | 936.6800  | IN.     |
|          |        |   |        |      |        |      | XMRP                  | 1109.0000 | IN. X0  |
|          |        |   |        |      |        |      | YMRP                  | .0000     | IN. Y0  |
|          |        |   |        |      |        |      | ZMRP                  | 375.0000  | IN. Z0  |
|          |        |   |        |      |        |      | SCALE                 | .0405     |         |

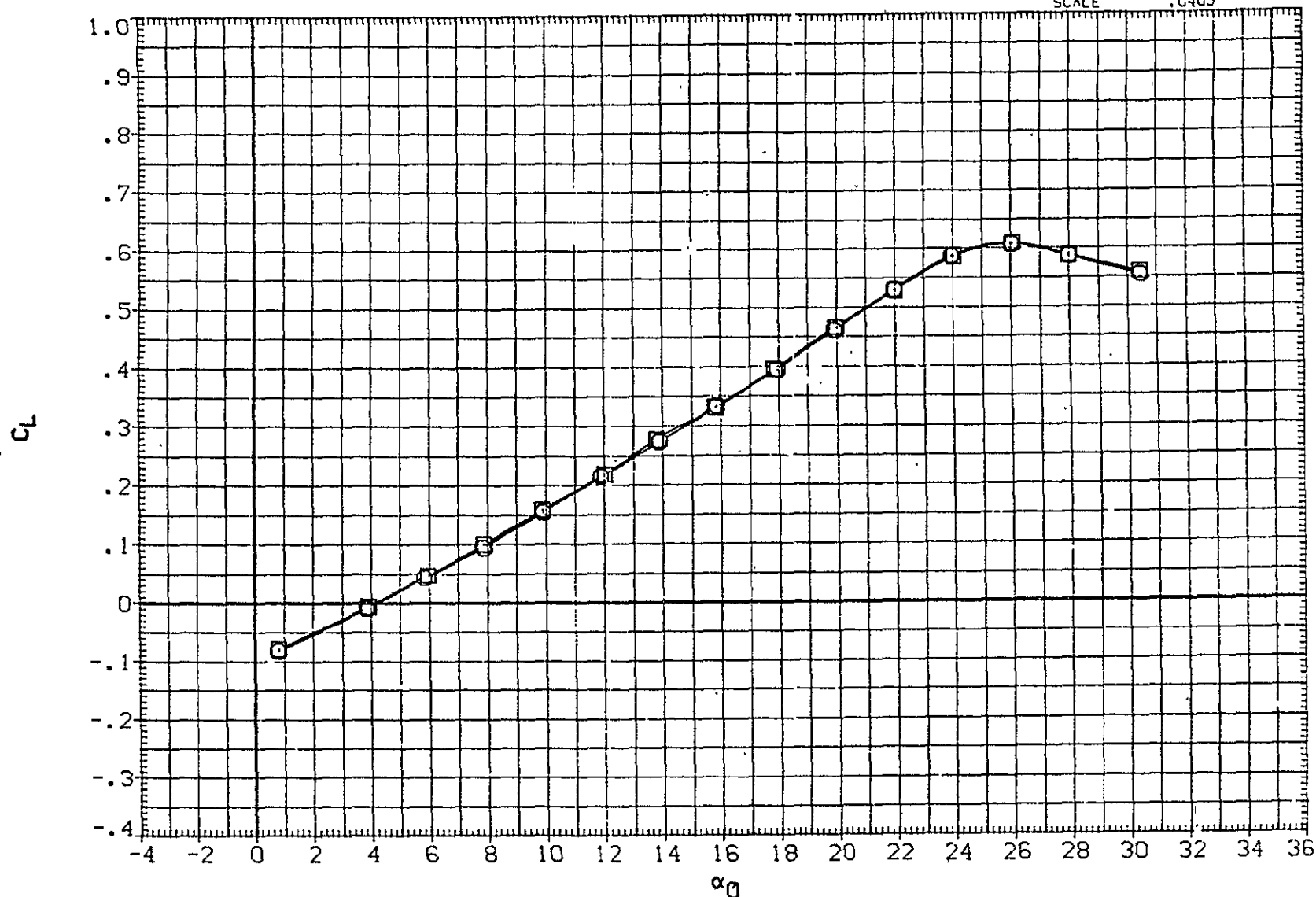


FIG 238 ALT CONFIG. EFFECT OF LANDING GEAR, FLAPS 10, 10RB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (TJF109) ○ (CA-8) K3V9.1.2TSSH15.6.1F10TS40265.3.5  
 (TJF107) □ (CA-8) K3V9.1.2TSSH15.6.1F10TS402

ELEVTR STAB BDFLAP BETA  
 .000 .000 .000 .000  
 .000 .000 .000 .000

REFERENCE INFORMATION  
 SREF 2690.0000 SQ.FT.  
 LREF 474.8100 IN.  
 BREF 936.6800 IN.  
 XMRP 1109.0000 IN.X0  
 YMRP .0000 IN.Y0  
 ZMRP 375.0000 IN.Z0  
 SCALE .0405

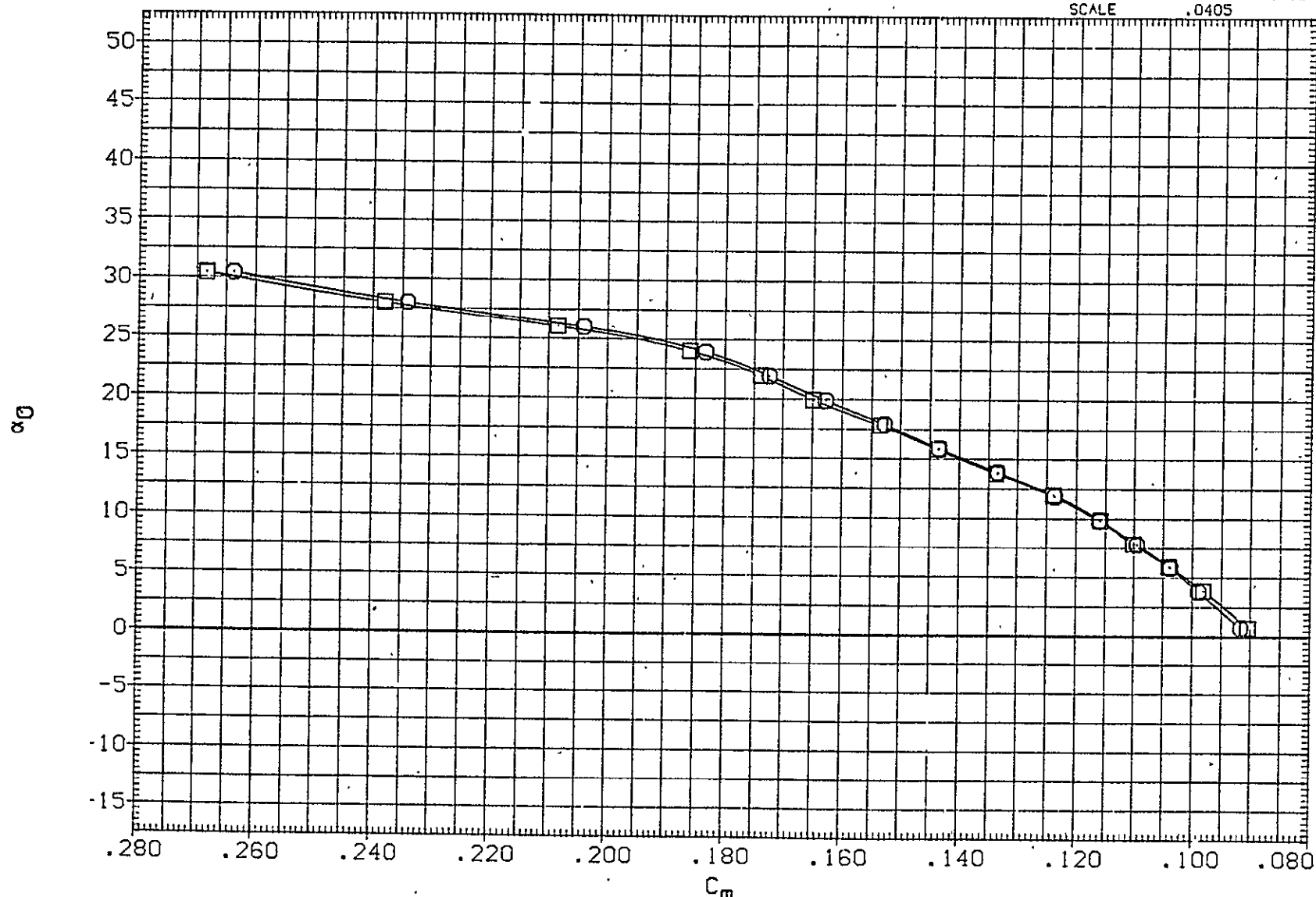


FIG 238 ALT CONFIG. EFFECT OF LANDING GEAR, ORBITER BALANCE DATA-ALPHA SWEEPS FLAPS 10, IORB=6, TC OFF, ELEV=-5

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               |
|----------|--------|---|
| (TJF109) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F10TS40265.3.5 |
| (TJF107) | □      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402       |

| ELEVTR | STAB | BDFLAP | BETA |
|--------|------|--------|------|
| .000   | .000 | .000   | .000 |
| .000   | .000 | .000   | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | SQ.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN.X0  |
| YMRP                  | .0000     | IN.Y0  |
| ZMRP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

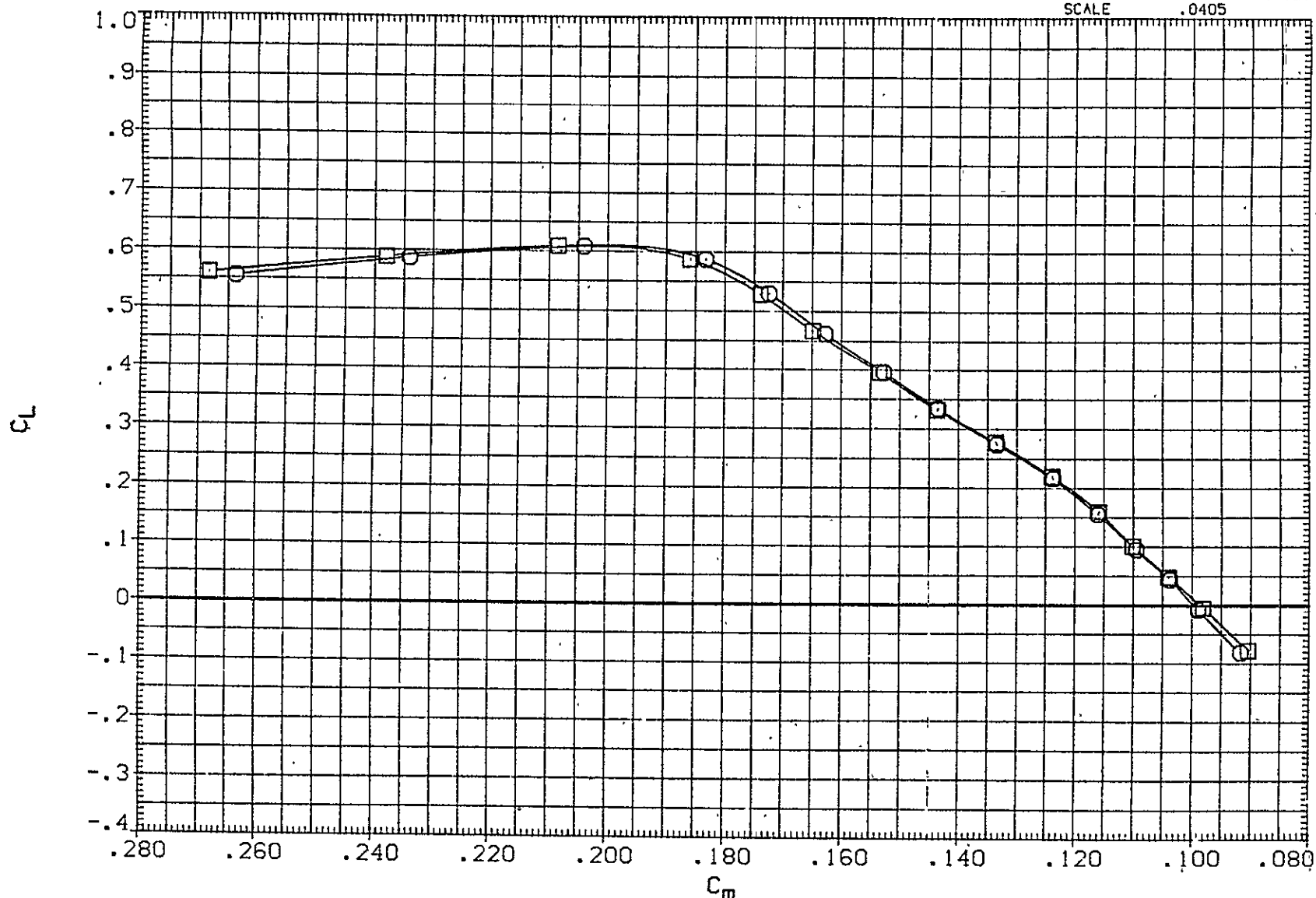


FIG 238 ALT CONFIG. EFFECT OF LANDING GEAR,  
ORBITER BALANCE DATA-ALPHA SWEEPS

FLAPS 10, IORB=6, TC OFF, ELEV=-5

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB | BDFLAP | BETA | REFERENCE INFORMATION |                  |
|----------|--------|---|--------|------|--------|------|-----------------------|------------------|
| (TJF109) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F10TS40265.3.5 | .000   | .000 | .000   | .000 | SREF                  | 2690.0000 SQ.FT. |
| (TJF107) | □      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402       | .000   | .000 | .000   | .000 | LREF                  | 474.8100 IN.     |
|          |        |   |        |      |        |      | BREF                  | 936.6800 IN.     |
|          |        |   |        |      |        |      | XMRP                  | 1109.0000 IN.X0  |
|          |        |   |        |      |        |      | YMRP                  | .0000 IN.Y0      |
|          |        |   |        |      |        |      | ZMRP                  | 375.0000 IN.Z0   |
|          |        |   |        |      |        |      | SCALE                 | .0405            |

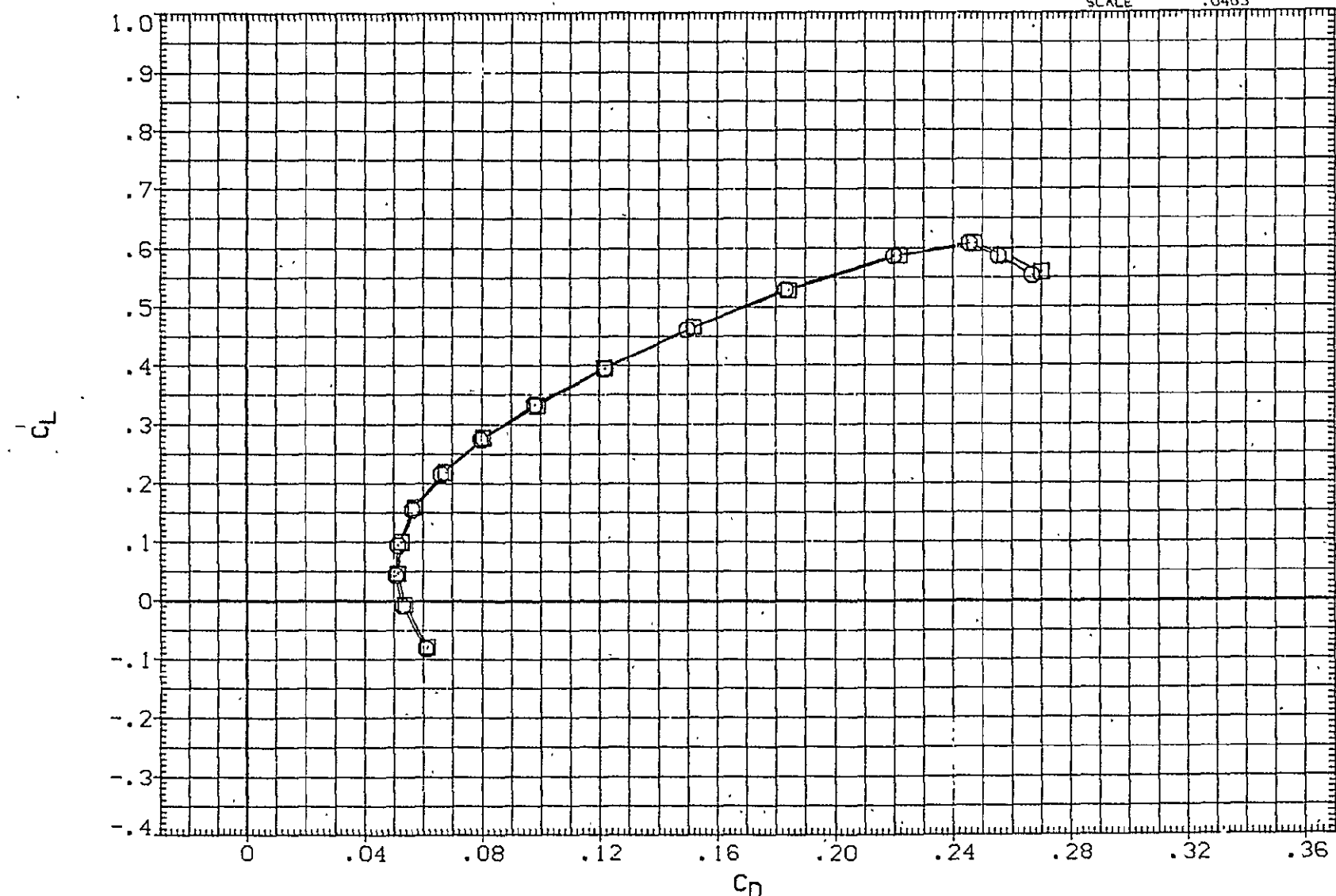


FIG 238 ALT CONFIG. EFFECT OF LANDING GEAR, FLAPS 10. IORB=6.TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           |
|----------|--------|-------------------------------------|
| (TJF110) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402SS |
| (TJF107) | □      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402   |

| ELEVTR | STAB | BDFLAP | BETA | REFERENCE INFORMATION |                  |
|--------|------|--------|------|-----------------------|------------------|
| .000   | .000 | .000   | .000 | SREF                  | 2690.0000 SQ.FT. |
| .000   | .000 | .000   | .000 | LREF                  | 474.8100 IN.     |
|        |      |        |      | BREF                  | 936.6800 IN.     |
|        |      |        |      | XMRP                  | 1109.0000 IN.X0  |
|        |      |        |      | YMRP                  | .0000 IN.Y0      |
|        |      |        |      | ZMRP                  | 375.0000 IN.Z0   |
|        |      |        |      | SCALE                 | .0405            |

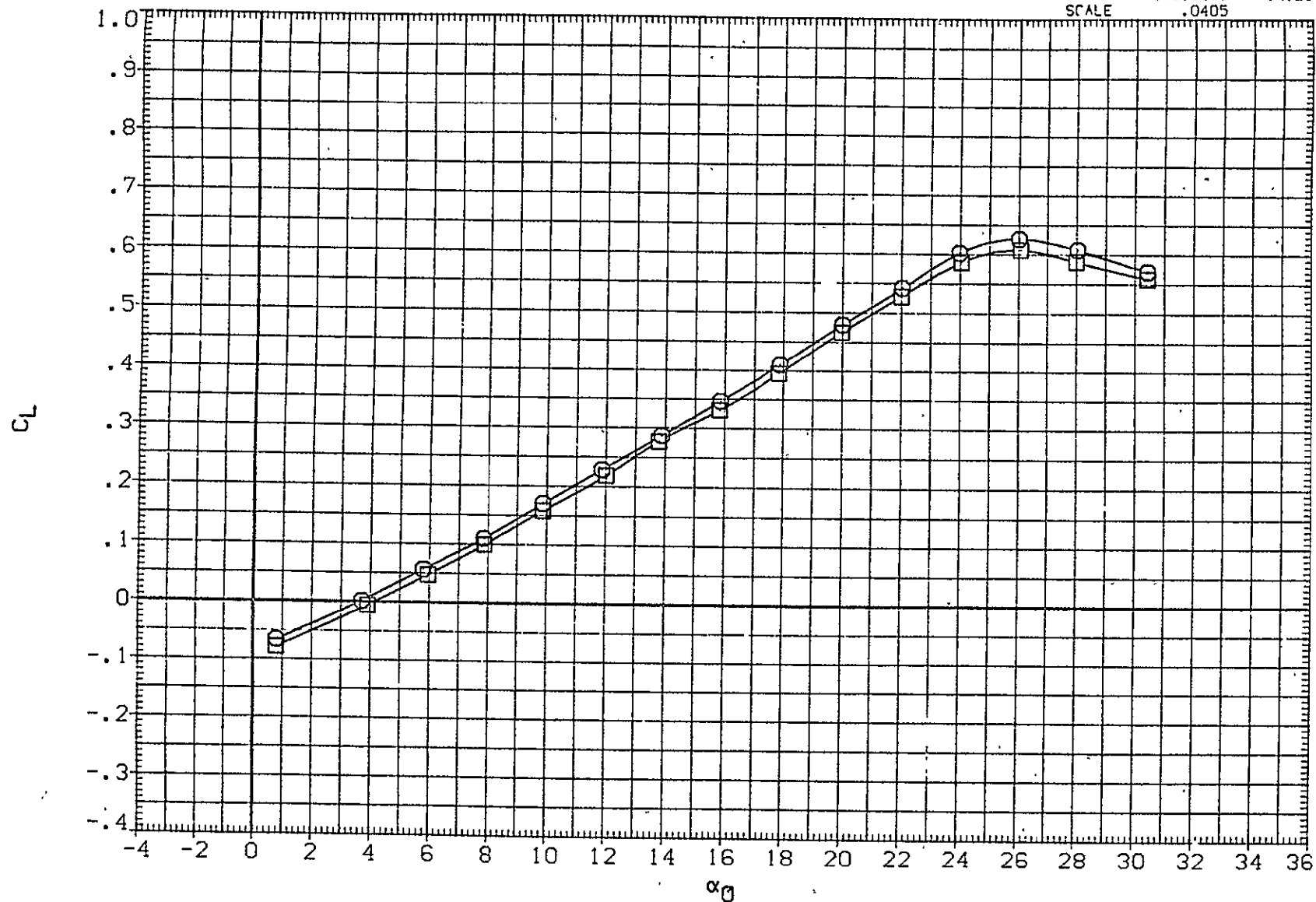


FIG 239 ALT CONFIG. EFFECT OF SUGAR SCOOPS, FLAPS 10, 10RB=6, TC OFF, ELEV=-5  
 ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

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REPRODUCIBILITY OF THE  
 ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ELEVTR | STAB | BDFLAP | BETA | REFERENCE INFORMATION |                  |
|----------|--------|-------------------------------------|--------|------|--------|------|-----------------------|------------------|
| (TJF110) | ○      | (CA-8) K3V9.1.2TS5H15.6.1FIOTS402SS | .000   | .000 | .000   | .000 | SREF                  | 2690.0000 SQ.FT. |
| (TJF107) | □      | (CA-8) K3V9.1.2TS5H15.6.1FIOTS402   | .000   | .000 | .000   | .000 | LREF                  | 474.8100 IN.     |
|          |        |                                     |        |      |        |      | BREF                  | 936.6800 IN.     |
|          |        |                                     |        |      |        |      | XMRP                  | 1109.0000 IN.X0  |
|          |        |                                     |        |      |        |      | YMRP                  | .0000 IN.Y0      |
|          |        |                                     |        |      |        |      | ZMRP                  | 375.0000 IN.Z0   |
|          |        |                                     |        |      |        |      | SCALE                 | .0405            |

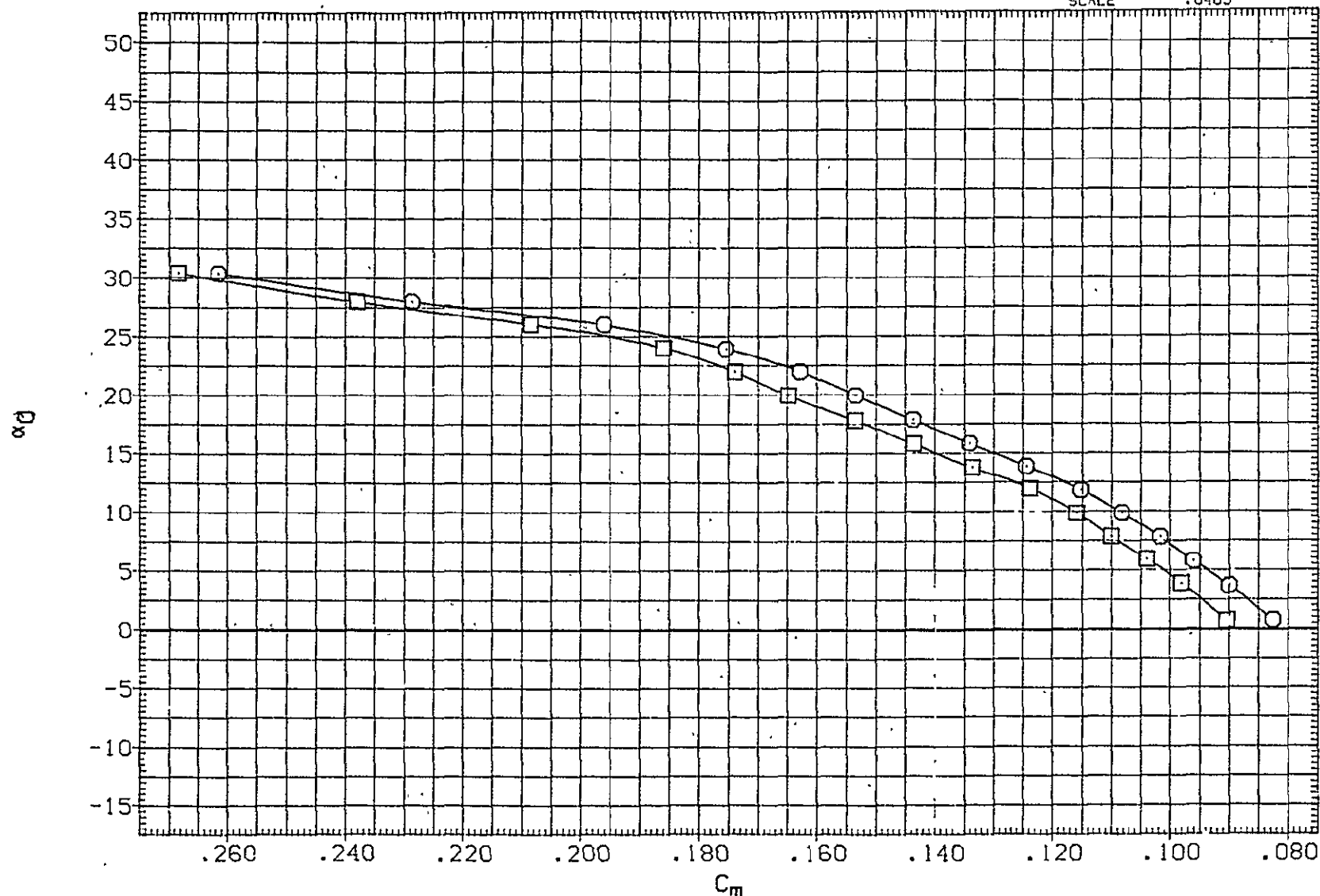


FIG 239 ALT CONFIG. EFFECT OF SUGAR SCOOPS, FLAPS 10, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ELEVTR | STAB | BDFLAP | BETA | REFERENCE INFORMATION |           |         |
|----------|--------|-------------------------------------|--------|------|--------|------|-----------------------|-----------|---------|
| (TJF110) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402SS | .000   | .000 | .000   | .000 | SREF                  | 2690.0000 | 50. FT. |
| (TJF107) | □      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402   | .000   | .000 | .000   | .000 | LREF                  | 474.8100  | IN.     |
|          |        |                                     |        |      |        |      | BREF                  | 936.6800  | IN.     |
|          |        |                                     |        |      |        |      | XMRP                  | 1109.0000 | IN. X0  |
|          |        |                                     |        |      |        |      | YMRP                  | .0000     | IN. Y0  |
|          |        |                                     |        |      |        |      | ZMRP                  | 375.0000  | IN. Z0  |
|          |        |                                     |        |      |        |      | SCALE                 | .0405     |         |

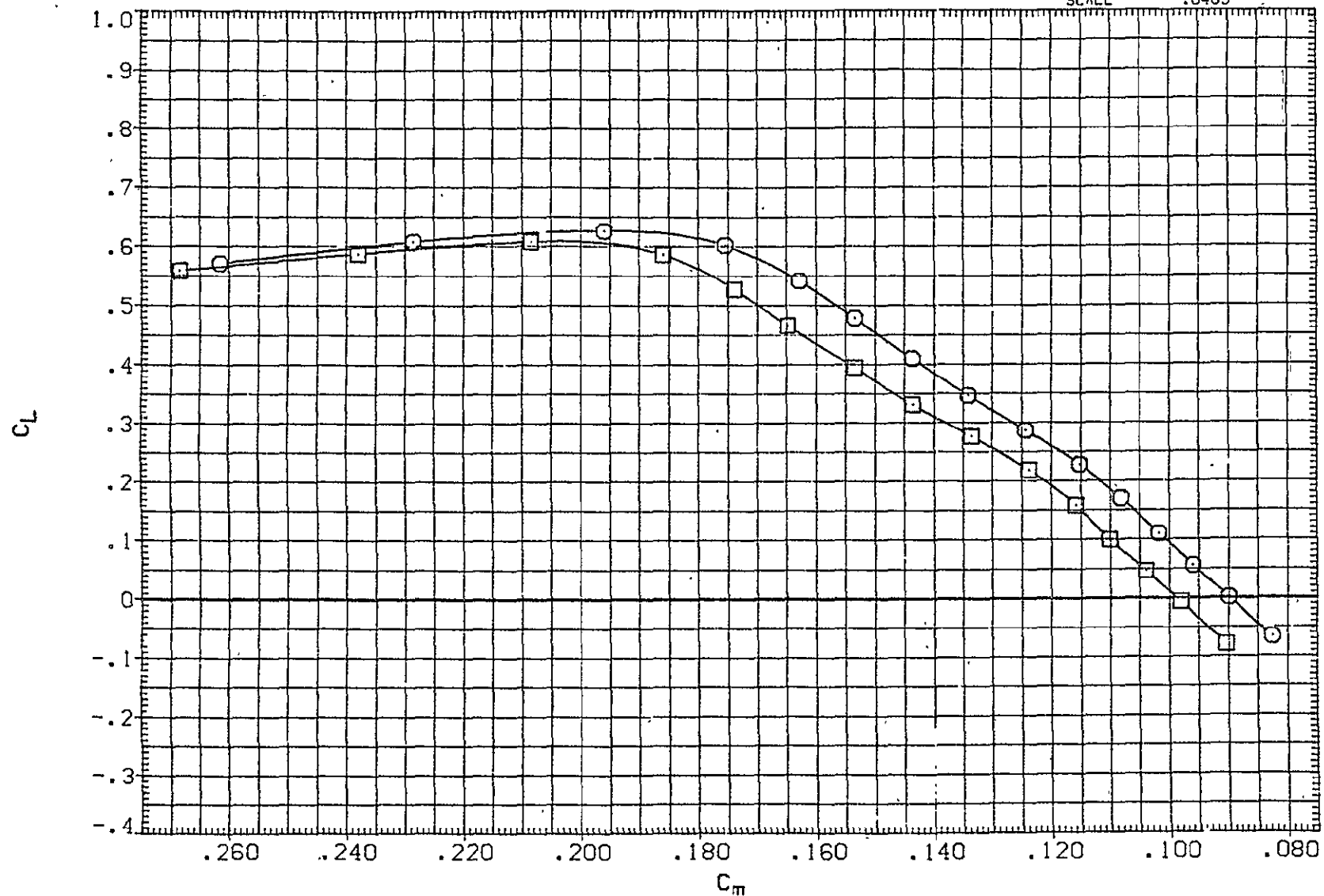


FIG 239 ALT CONFIG. EFFECT OF SUGAR SCOOPS. FLAPS 10, 10RB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           |
|----------|--------|-------------------------------------|
| (TJF110) | ○      | (CA-8) K3V9.1.2TSSH15.6.1F10TS402SS |
| (TJF107) | □      | (CA-8) K3V9.1.2TSSH15.6.1F10TS402   |

| ELEVTR | STAB | BDFLAP | BETA |
|--------|------|--------|------|
| .000   | .000 | .000   | .000 |
| .000   | .000 | .090   | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | SQ.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN.X0  |
| YMRP                  | .0000     | IN.Y0  |
| ZMRP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

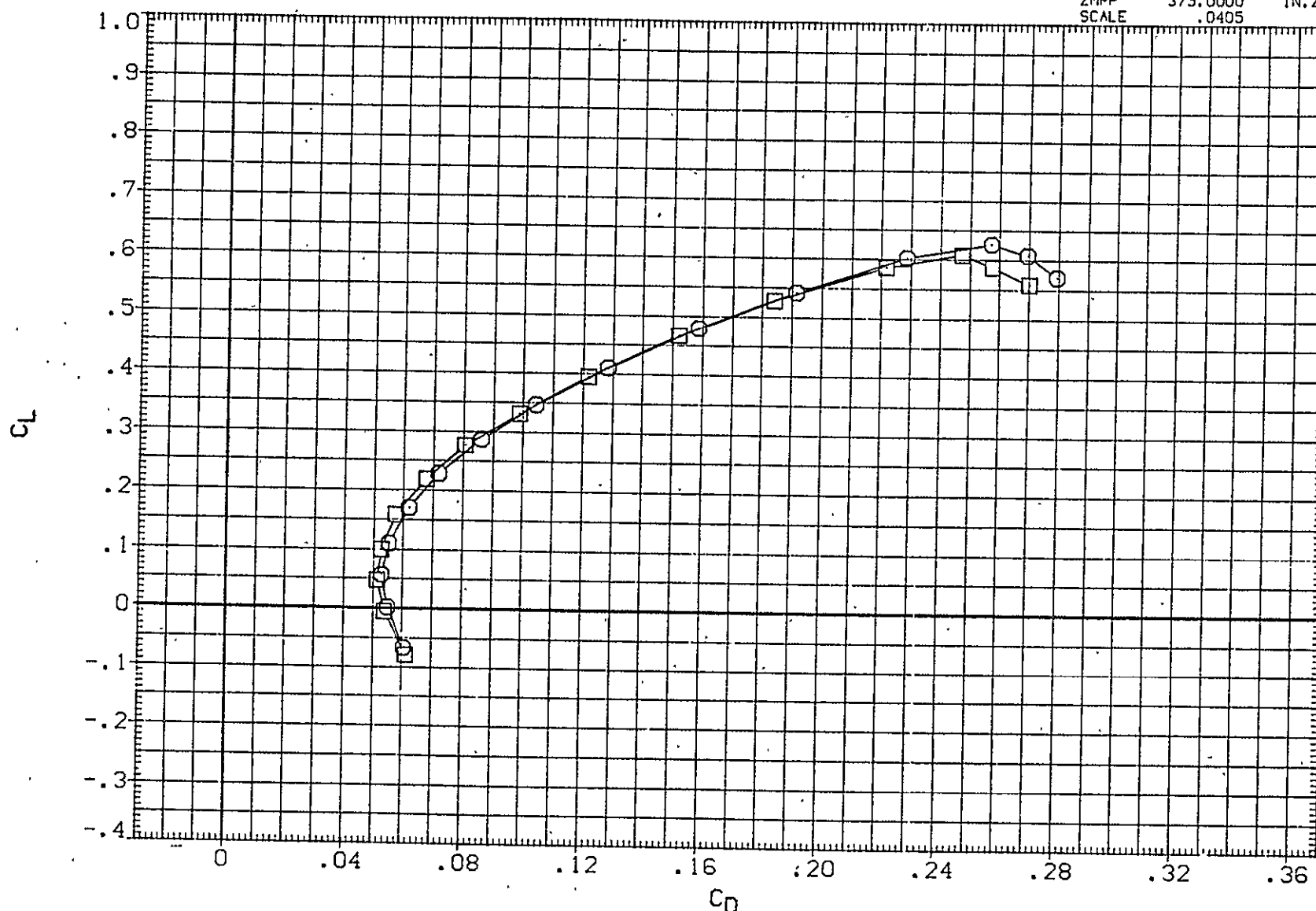


FIG 239 ALT CONFIG. EFFECT OF SUGAR SCOOPS.  
ORBITER BALANCE DATA-ALPHA SWEEPS

FLAPS 10, IORB=6, TC OFF, ELEV=-5

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION          | ELEVTR | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|------------------------------------|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF086) | ○      | (CA-8) K3V9.1.2TSS F20TS402        |        |        | .000   | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF081) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20TS402  | .000   | 3.000  | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF080) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402 | .000   | .000   | .000   | .000 | BREF                  | 936.6800  | IN.    |
| (TJF079) | △      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402 | .000   | -2.000 | .000   | .000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF078) | ▽      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402 | .000   | -4.000 | .000   | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |                                    |        |        |        |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                    |        |        |        |      | SCALE                 | .0405     |        |

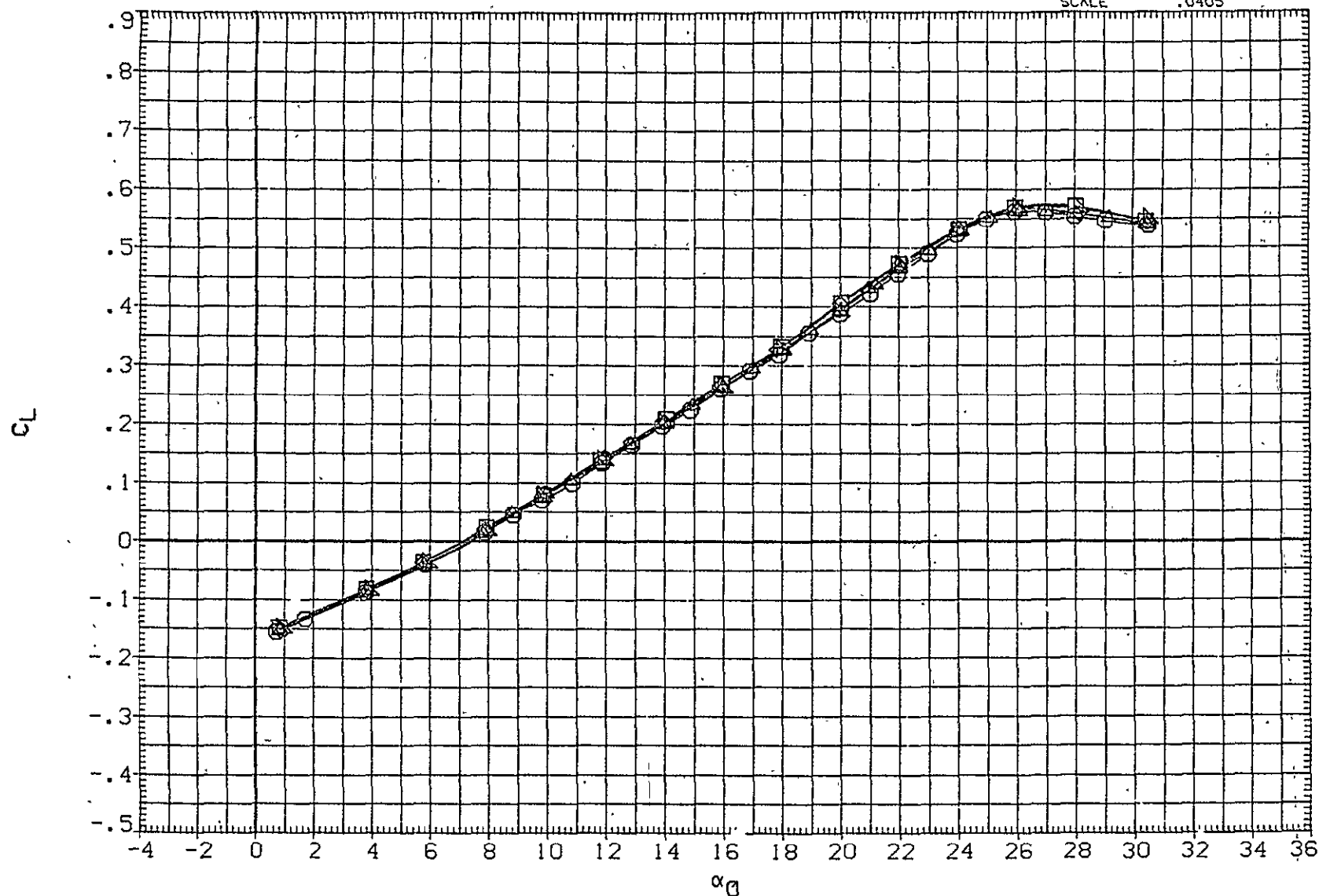


FIG 240 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 20, ICRB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

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REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION          | ELEVTR | STAB   | BDFLA <sup>2</sup> | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|------------------------------------|--------|--------|--------------------|------|-----------------------|-----------|--------|
| (TJF086) | ○      | (CA-8) K3V9.1.2TS5 F20TS402        |        |        | .000               | .000 | SREF                  | 2690.0000 | SG.FT. |
| (TJF081) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F20TS402  | .000   | 3.000  | .000               | .000 | LREF                  | 474.8100  | IN.    |
| (TJF080) | △      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402 | .000   | .000   | .000               | .000 | BREF                  | 936.6800  | IN.    |
| (TJF079) | ×      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402 | .000   | -2.000 | .000               | .000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF078) | ⊠      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402 | .000   | -4.000 | .000               | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |                                    |        |        |                    |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                    |        |        |                    |      | SCALE                 | .0405     |        |

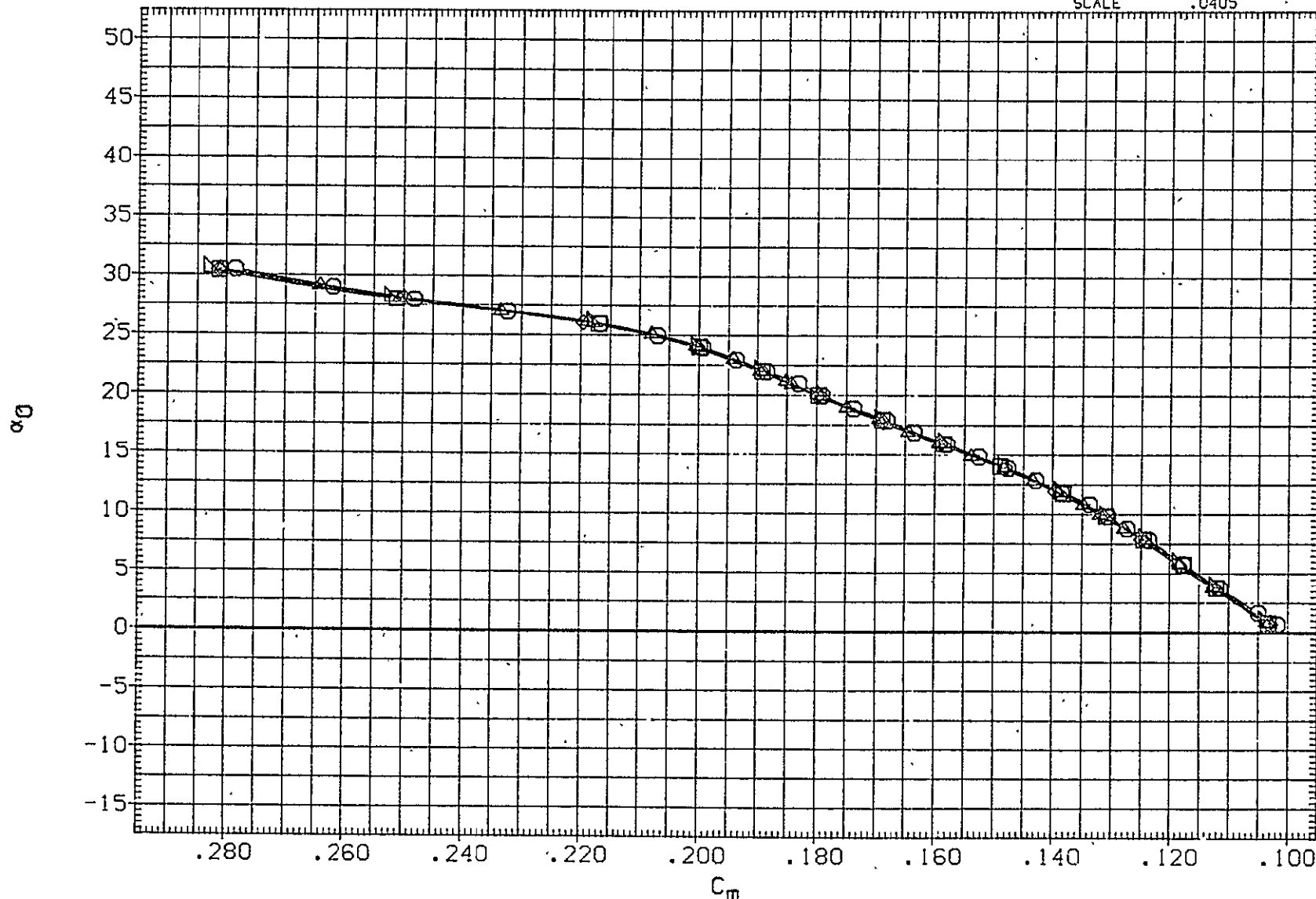


FIG 240 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 20, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION          | ELEVTR | STAP   | BDFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|------------------------------------|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF086) | ○      | (CA-8) K3V9.1.2TS5 F20TS402        |        |        |        |      | SREF                  | 2690.0000 | 50.FT. |
| (TJF081) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F20TS402  |        |        |        |      | LREF                  | 474.8100  | IN.    |
| (TJF080) | △      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402 | .000   | 3.000  | .000   | .000 | BREF                  | 936.6800  | IN.    |
| (TJF079) | ▽      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402 | .000   | .000   | .000   | .000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF078) | △      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402 | .000   | -2.000 | .000   | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |                                    | .000   | -4.000 | .000   | .000 | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                    |        |        |        |      | SCALE                 | .0405     |        |

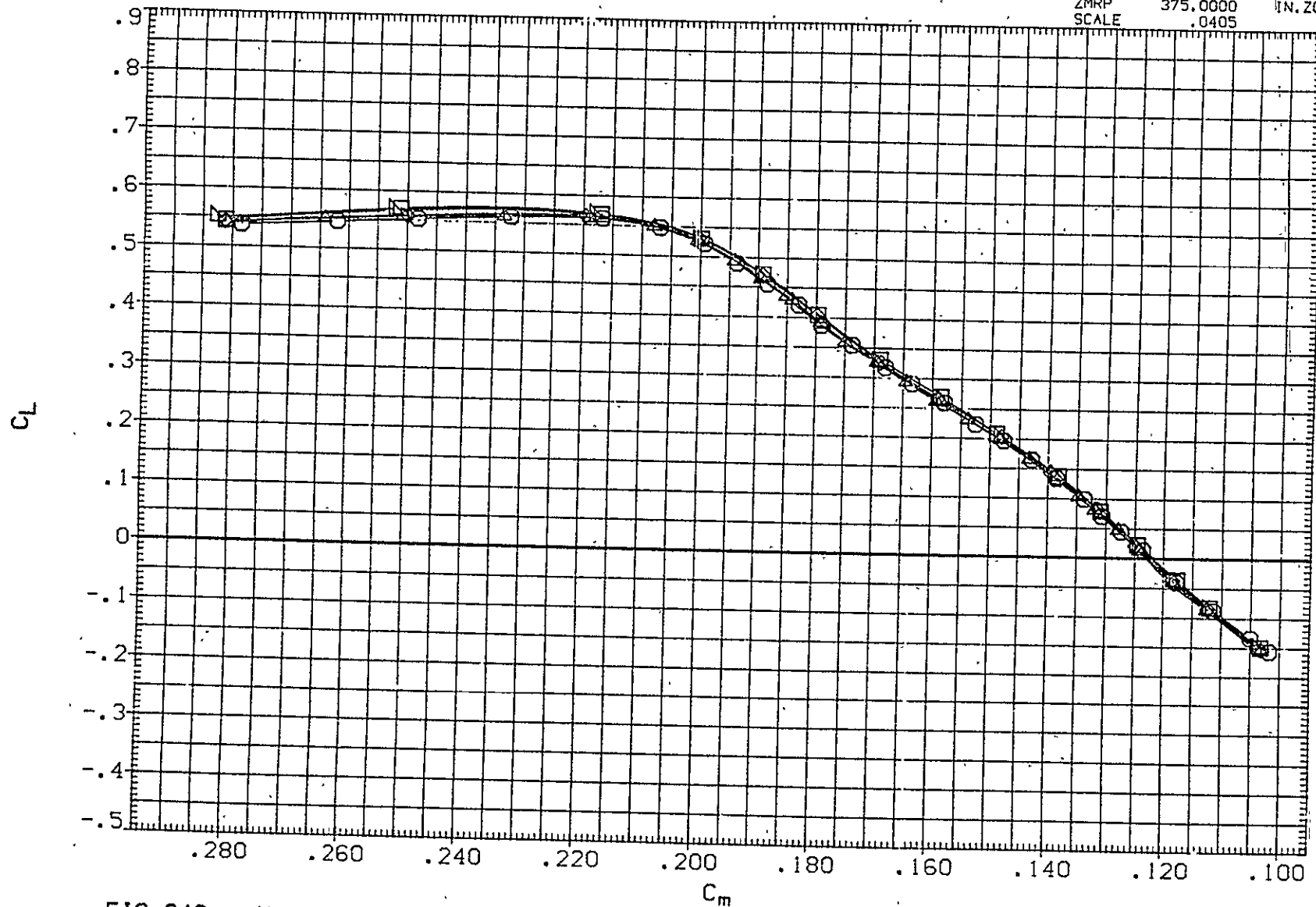


FIG 240 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 20, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION          | ELEVTR | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |                  |
|----------|--------|------------------------------------|--------|--------|--------|------|-----------------------|------------------|
| (TJF086) | ○      | (CA-8) K3V9.1.2TS5 F20TS402        |        |        | .000   | .000 | SREF                  | 2690.0000 SQ.FT. |
| (TJF081) | □      | (CA-8) K3V9.1.2TSSH15.6.1F20TS402  | .000   | 3.000  | .000   | .000 | LREF                  | 474.8100 IN.     |
| (TJF080) | ◇      | (CA-8) K3V9.1.2TSSH15.6.1F20 TS402 | .000   | .000   | .000   | .000 | BREF                  | 936.6800 IN.     |
| (TJF079) | △      | (CA-8) K3V9.1.2TSSH15.6.1F20 TS402 | .000   | -2.000 | .000   | .000 | XMRP                  | 1109.0000 IN.XO  |
| (TJF078) | ▽      | (CA-8) K3V9.1.2TSSH15.6.1F20 TS402 | .000   | -4.000 | .000   | .000 | YMRP                  | .0000 IN.YO      |
|          |        |                                    |        |        |        |      | ZMRP                  | 375.0000 IN.ZO   |
|          |        |                                    |        |        |        |      | SCALE                 | .0405            |

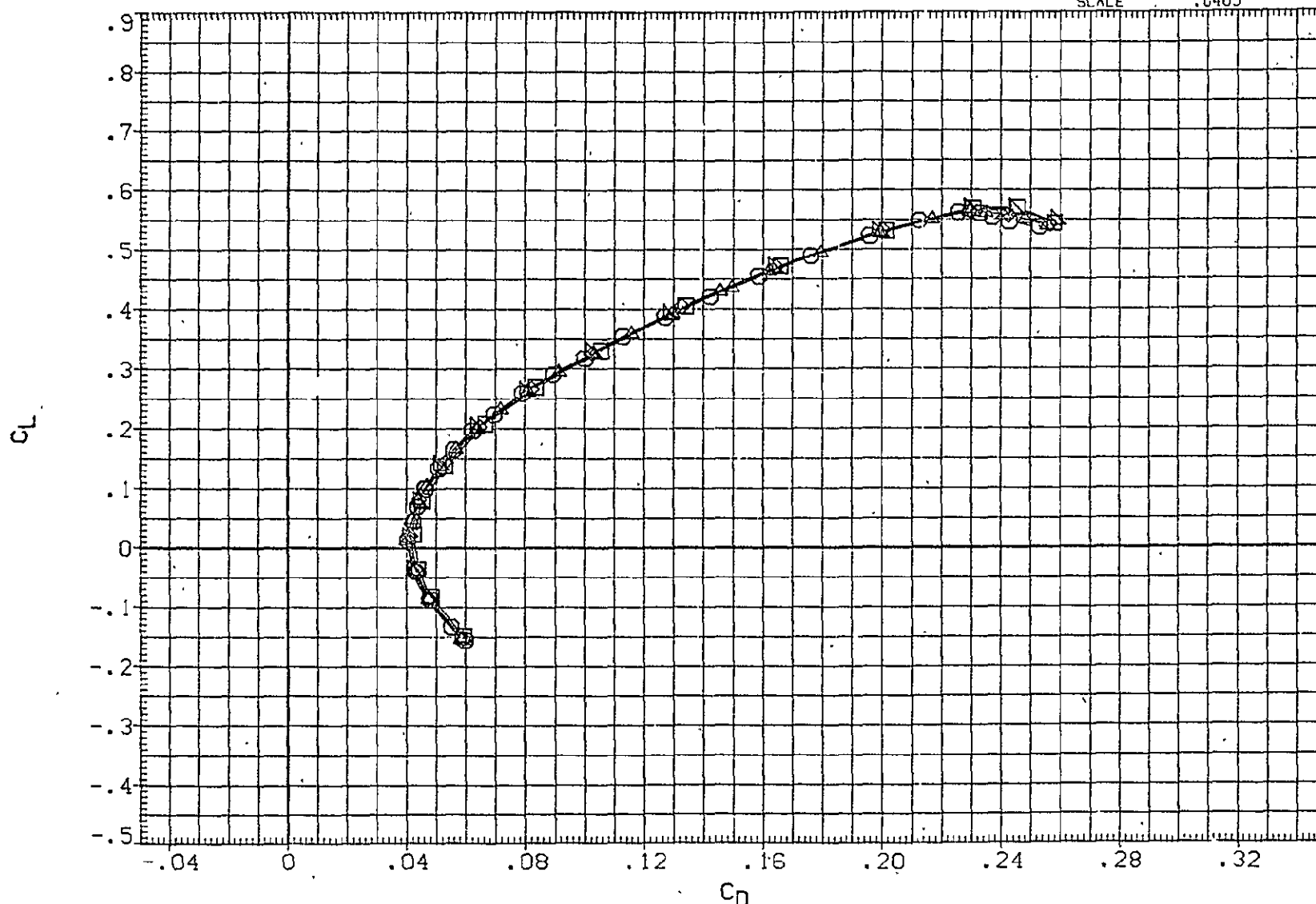


FIG 240 ALT CONFIG. STABILIZER EFFECTIVENESS. FLAPS 20. IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               |
|----------|--------|---|
| (1JF077) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F20G5.3.5TS402 |
| (1JF079) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402      |

| ELEVTR | STAB   | BDFLAP | BETA |
|--------|--------|--------|------|
| .000   | -2.000 | .000   | .000 |
| .000   | -2.000 | .000   | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | SQ.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN.X0  |
| YMRP                  | .0000     | IN.Y0  |
| ZMRP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

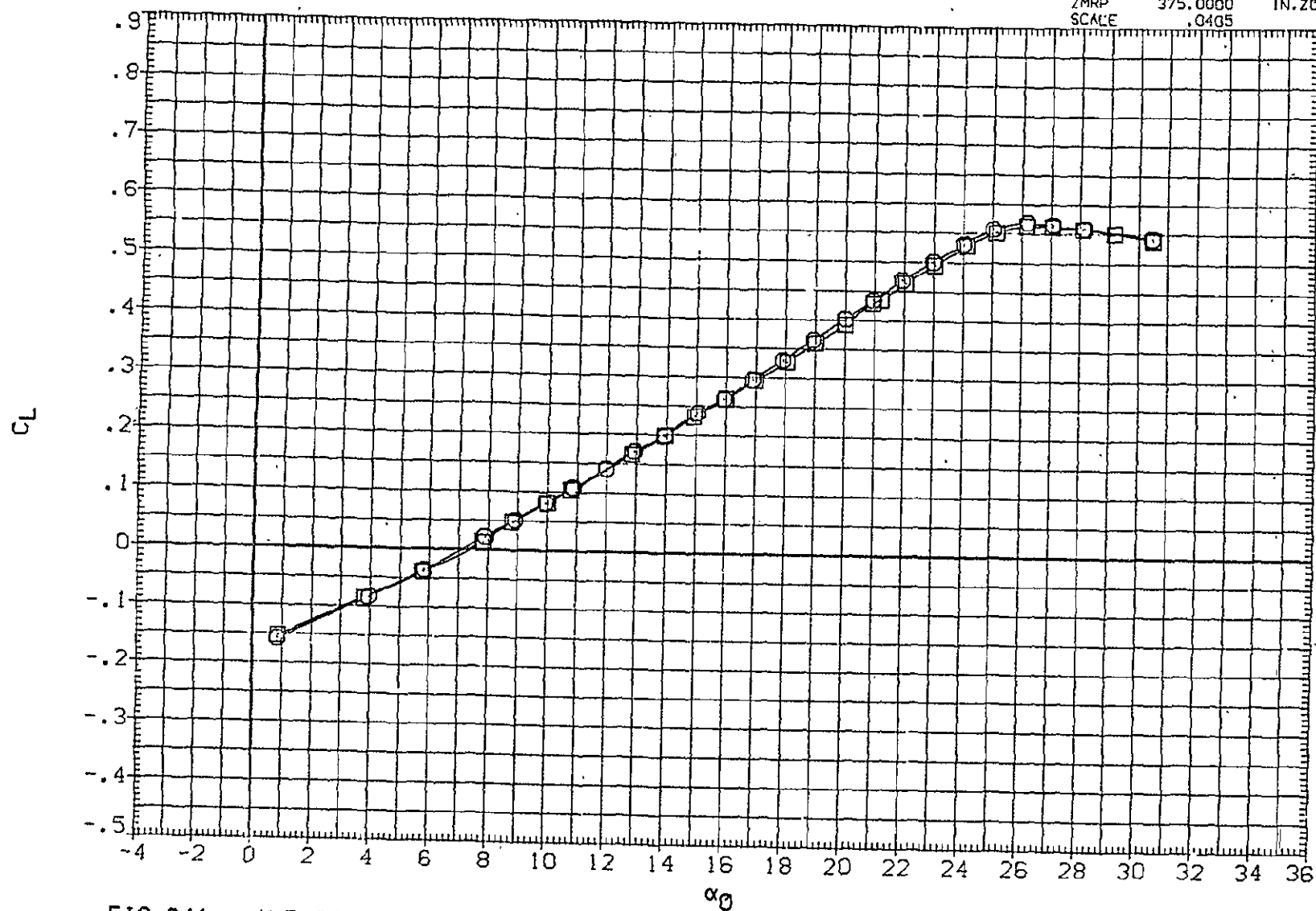


FIG 241 ALT CONFIG. EFFECT OF LANDING GEAR,  
ORBITER BALANCE DATA-ALPHA SWEEPS

FLAPS 20, ICRB=6, TC OFF, ELEV=-5

(ALMACH

15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               |
|----------|--------|---|
| (TJF077) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F20G5.3.STS402 |
| (TJF079) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402      |

| ELEVTR | STAB   | BDFLAP | BETA |
|--------|--------|--------|------|
| .000   | -2.000 | .000   | .000 |
| .000   | -2.000 | .000   | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | SG.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN.X0  |
| YMRP                  | .0000     | IN.Y0  |
| ZMRP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

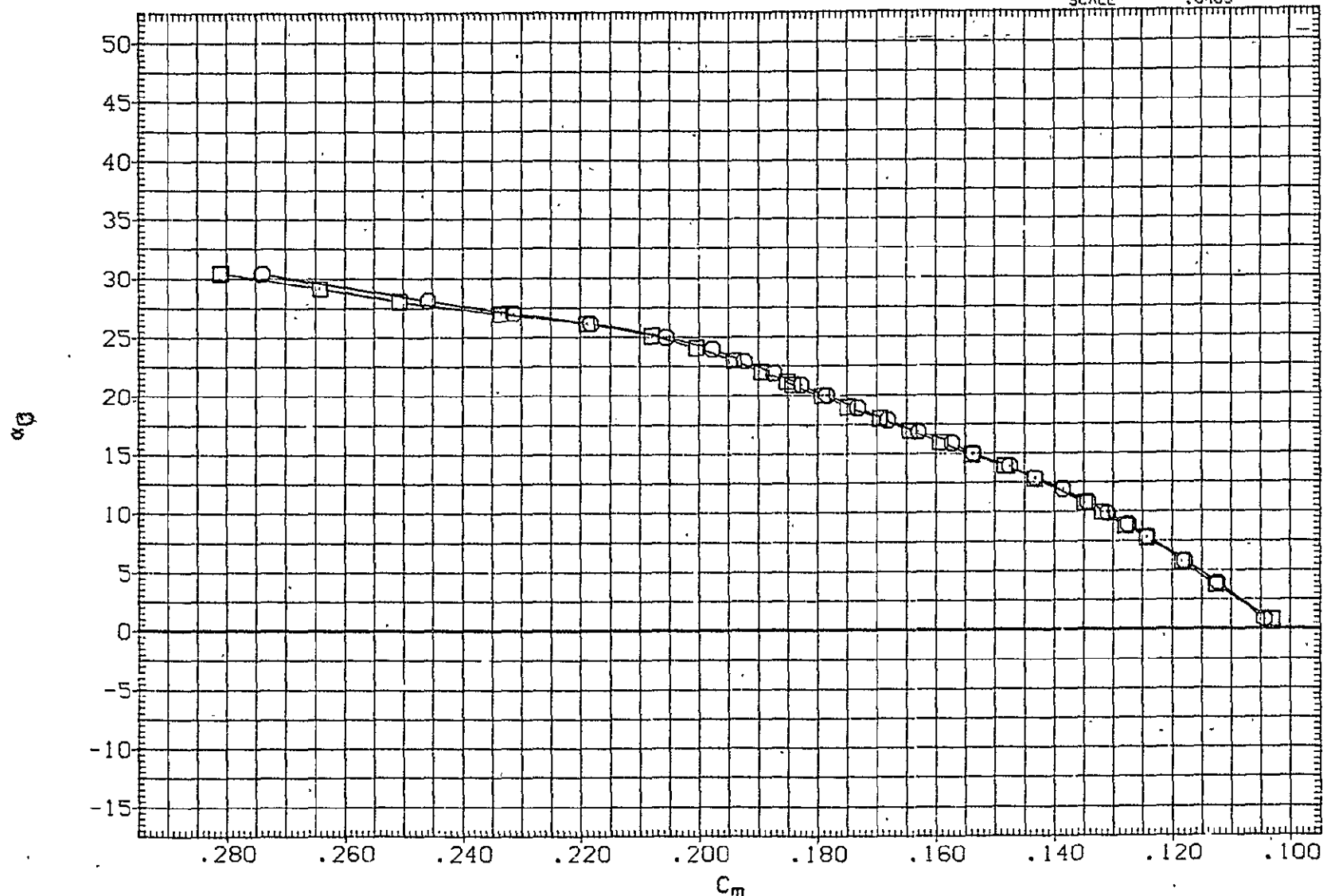


FIG 241 ALT CONFIG. EFFECT OF LANDING GEAR, FLAPS 20, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               |
|----------|--------|---|
| (TJF077) | ○      | (CA-8) K3V9.1.2TSSH15.6.1F20G5.3.5TS402 |
| (TJF079) | □      | (CA-8) K3V9.1.2TSSH15.6.1F20 TS402      |

| ELEVTR | STAB   | BOFLAP | BETA |
|--------|--------|--------|------|
| .000   | -2.000 | .030   | .000 |
| .000   | -2.000 | .030   | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | SQ.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN.X0  |
| YMRP                  | .0000     | IN.Y0  |
| ZMRP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

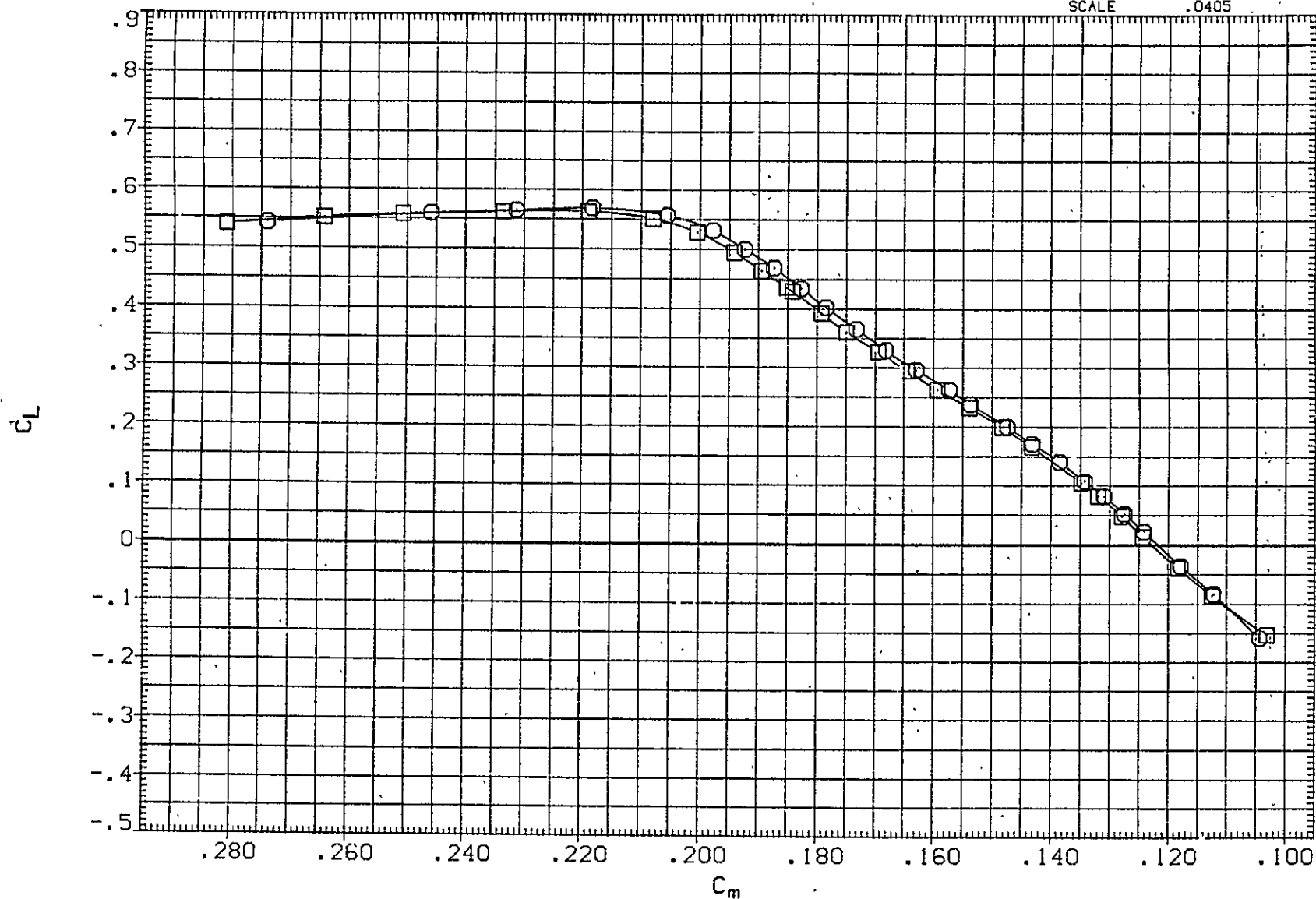


FIG 241 ALT CONFIG. EFFECT OF LANDING GEAR, FLAPS 20, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF077) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F20G5.3.5TS402 | .000   | -2.000 | .000   | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF079) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402      | .000   | -2.000 | .000   | .000 | LREF                  | 474.8100  | IN.    |
|          |        |   |        |        |        |      | BREF                  | 936.6800  | IN.    |
|          |        |   |        |        |        |      | XM RP                 | 1109.0000 | IN. X0 |
|          |        |   |        |        |        |      | YM RP                 | .0000     | IN. Y0 |
|          |        |   |        |        |        |      | ZM RP                 | 375.0000  | IN. Z0 |
|          |        |   |        |        |        |      | SCALE                 | .0405     |        |

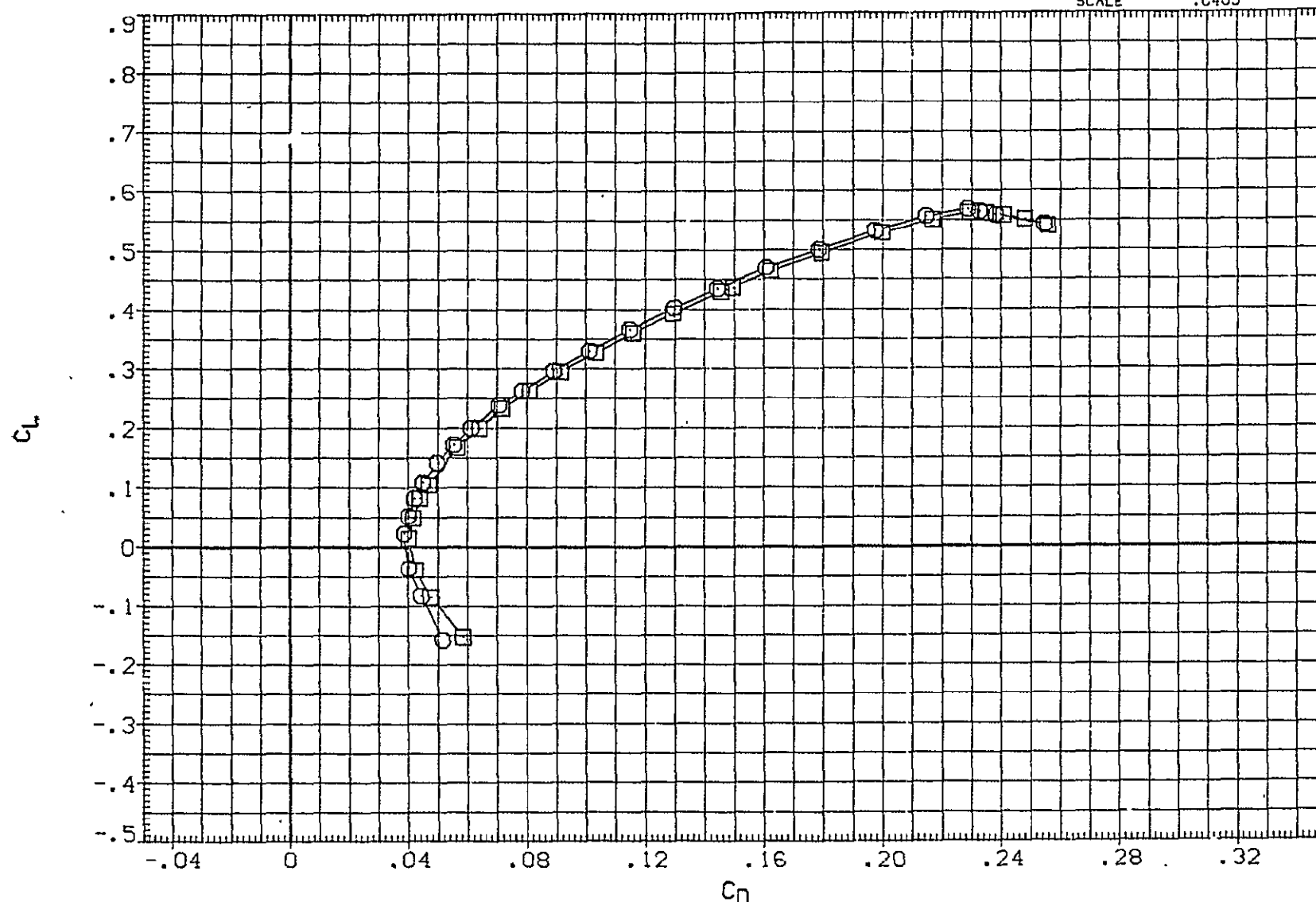


FIG 241 ALT CONFIG. EFFECT OF LANDING GEAR, FLAPS 20, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           |
|----------|--------|-------------------------------------|
| (TJF100) | ○      | (CA-8) K3.1V9.1.2TS5H15.6.1F20TS402 |
| (TJF078) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402  |
| (TJF101) | ◇      | (CA-8) K3.1V9.1.2TS5H15.6.1F20TS402 |

| ELEVTR  | STAB   | BDFLAP | BETA |
|---------|--------|--------|------|
| 17.000  | -4.000 | .000   | .000 |
| .000    | -4.000 | .000   | .000 |
| -23.000 | -4.000 | .000   | .000 |

| REFERENCE INFORMATION |           |         |
|-----------------------|-----------|---------|
| SREF                  | 2690.0000 | 50. FT. |
| LREF                  | 474.8100  | IN.     |
| BREF                  | 936.6800  | IN.     |
| XMRP                  | 1109.0000 | IN. X0  |
| YMRP                  | .0000     | IN. Y0  |
| ZMRP                  | 375.0000  | IN. Z0  |
| SCALE                 | .0405     |         |

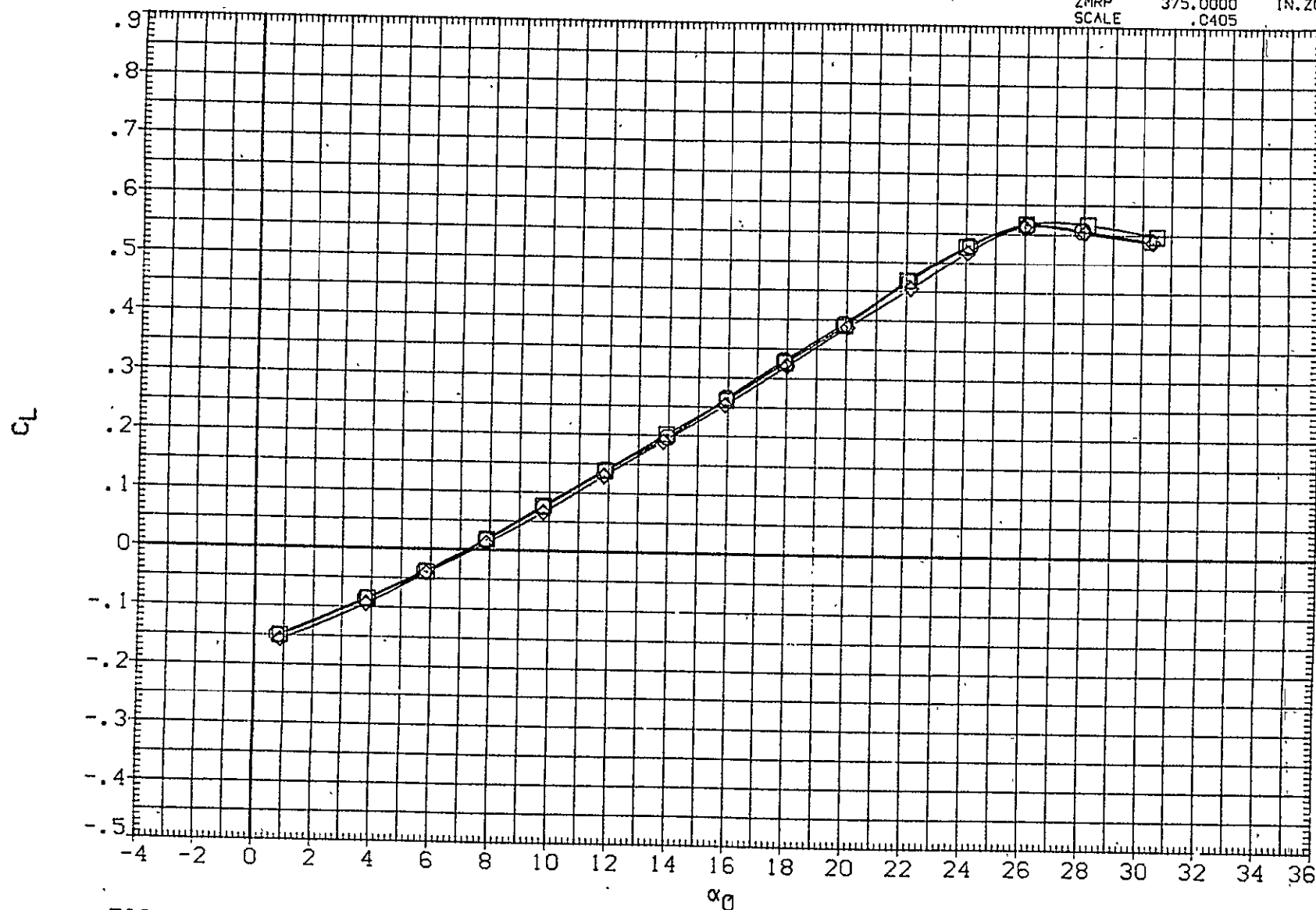


FIG 242 ALT CONFIG. ELEVATOR EFFECTIVENESS. FLAPS 20. IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS.

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ELEVTR  | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |           |         |
|----------|--------|-------------------------------------|---------|--------|--------|------|-----------------------|-----------|---------|
| (TJF100) | ○      | (CA-8) K3.1V9.1.2TS5H15.6.1F20TS402 | 17.000  | -4.000 | .000   | .000 | SREF                  | 2690.0000 | 50. FT. |
| (TJF078) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402  | .000    | -4.000 | .000   | .000 | LREF                  | 474.8100  | IN.     |
| (TJF101) | ◇      | (CA-8) K3.1V9.1.2TS5H15.6.1F20TS402 | -23.000 | -4.000 | .000   | .000 | BREF                  | 936.6800  | IN.     |
|          |        |                                     |         |        |        |      | XMRP                  | 1109.0000 | IN. X0  |
|          |        |                                     |         |        |        |      | YMRP                  | .0000     | IN. Y0  |
|          |        |                                     |         |        |        |      | ZMRP                  | 375.0000  | IN. Z0  |
|          |        |                                     |         |        |        |      | SCALE                 | .0405     |         |

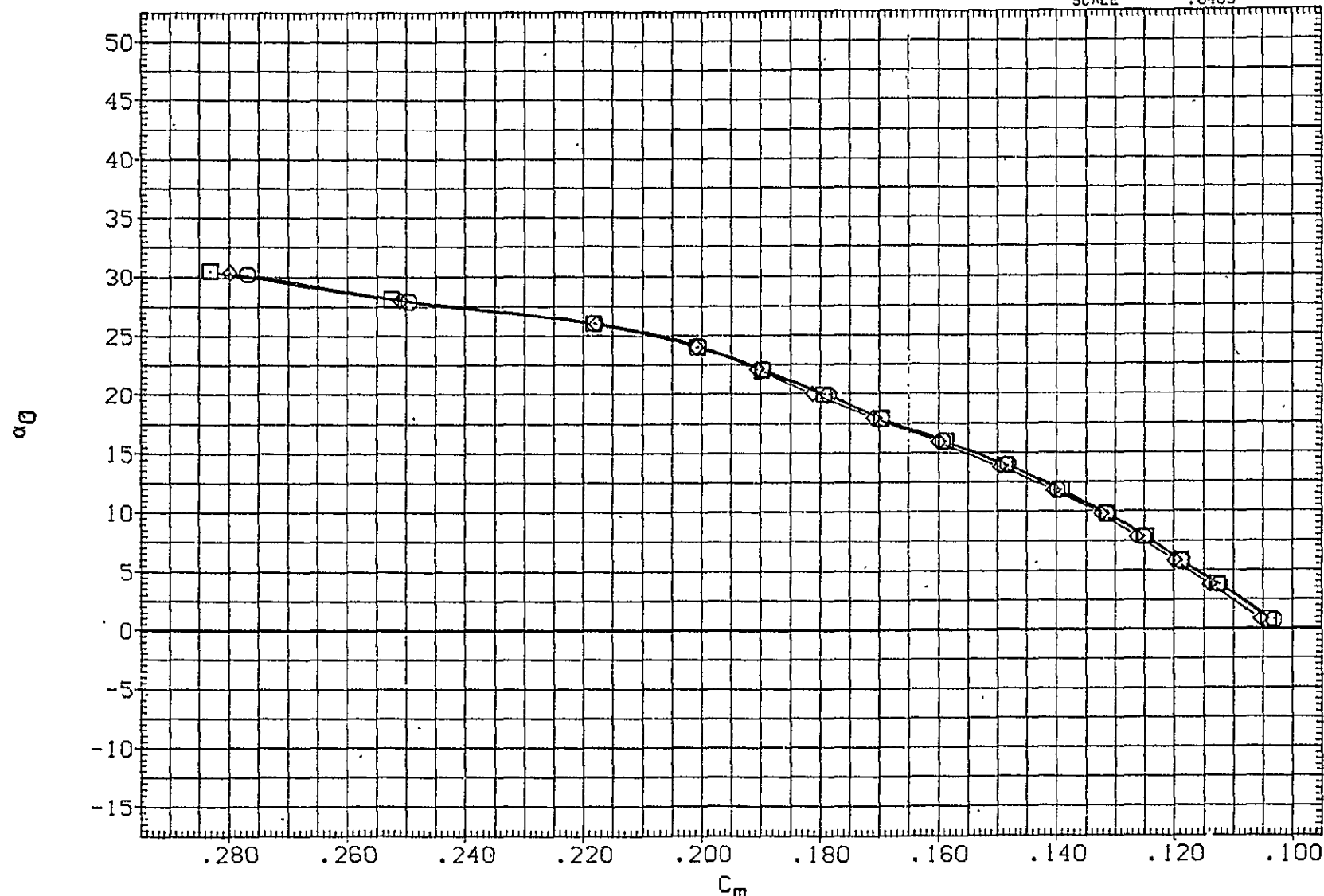


FIG 242 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 20, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           |
|----------|--------|-------------------------------------|
| (TJF100) | ○      | (CA-8) K3.1V9.1.2TS5H15.6.1F20TS402 |
| (TJF078) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402  |
| (TJF101) | ◇      | (CA-8) K3.1V9.1.2TS5H15.6.1F20TS402 |

| ELEVTR  | STAB   | BDFLAP | BETA |
|---------|--------|--------|------|
| 17.000  | -4.000 | .000   | .000 |
| .000    | -4.000 | .000   | .000 |
| -23.000 | -4.000 | .000   | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | SQ.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN.X0  |
| YMRP                  | .0000     | IN.Y0  |
| ZMRP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

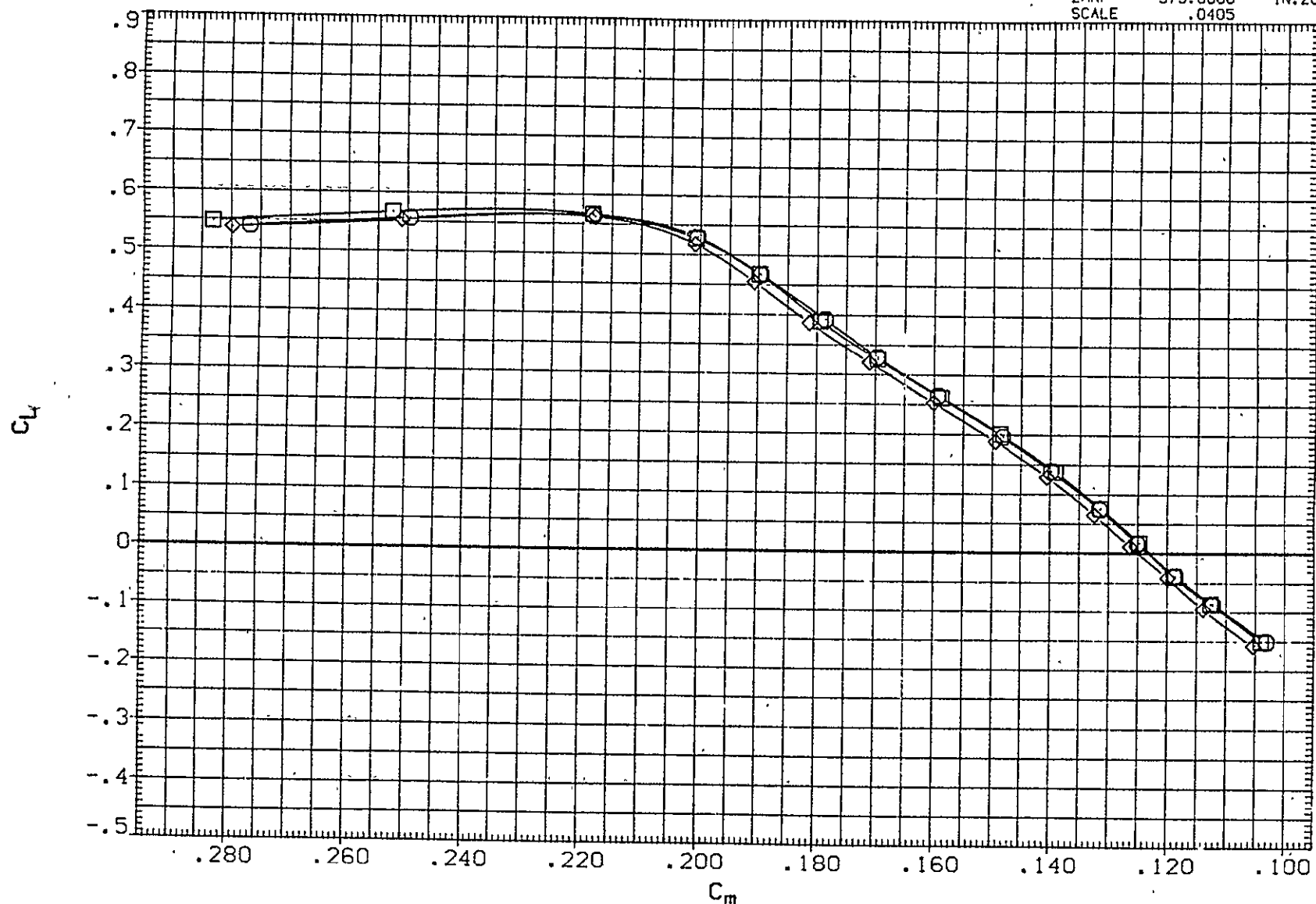


FIG 242 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 20, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           |
|----------|--------|-------------------------------------|
| (TJF100) | ○      | (CA-8) K3.1V9.1.2TS5H15.6.1F20TS402 |
| (TJF078) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402  |
| (TJF101) | ◇      | (CA-8) K3.1V9.1.2TS5H15.6.1F20TS402 |

| ELEVTR  | STAB   | BDFLAP | BETA |
|---------|--------|--------|------|
| 17.000  | -4.000 | .000   | .000 |
| .000    | -4.000 | .000   | .000 |
| -23.000 | -4.000 | .000   | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | SQ.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN.X0  |
| YMRP                  | .0000     | IN.Y0  |
| ZMRP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

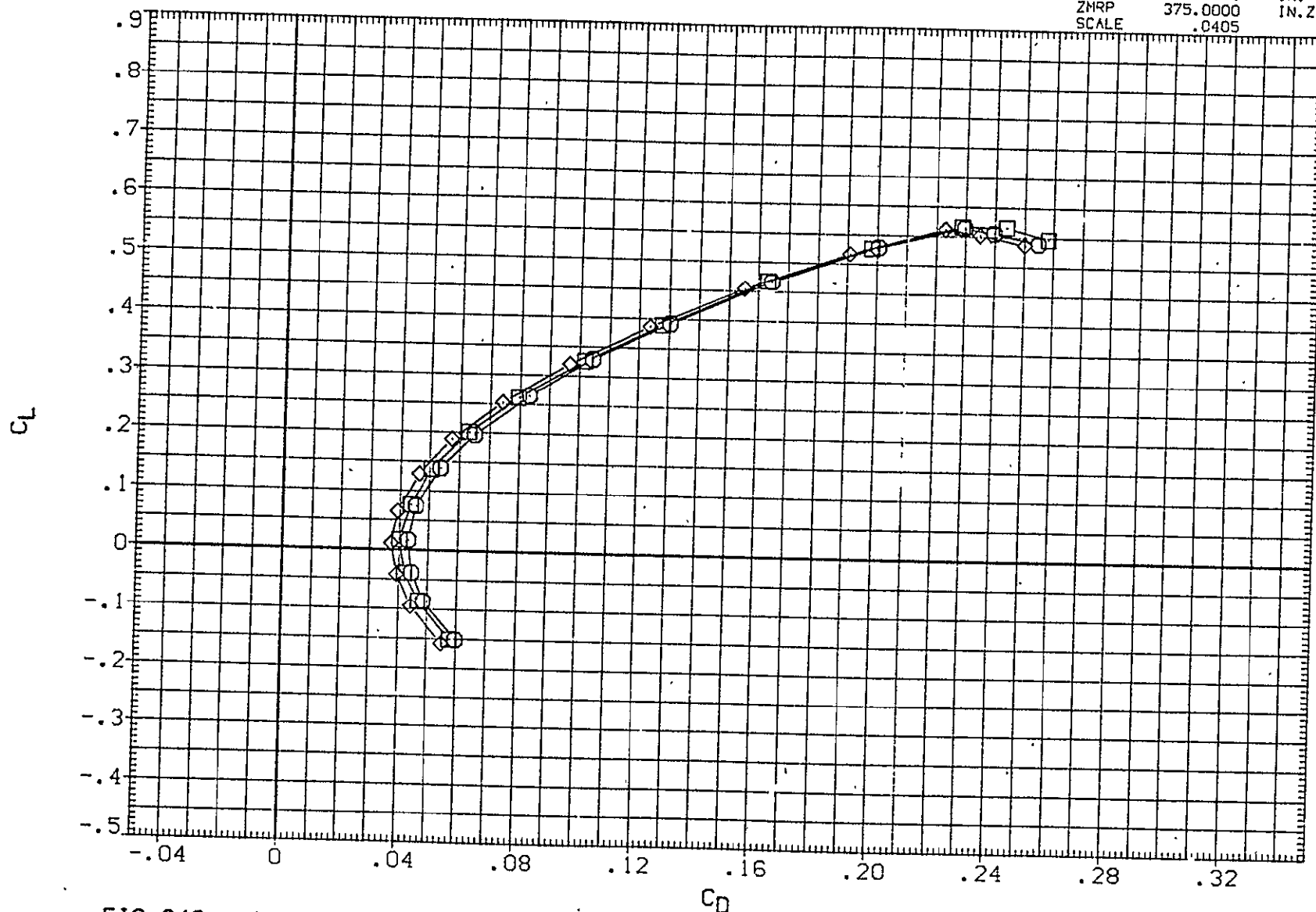


FIG 242 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 20, IORB=6, TC OFF, ELEV=-5  
 ORBITER BALANCE DATA-ALPHA SWEEPS  
 (A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BOFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF072) | □      | (CA-8) K3V9.1.2TS5 F3065.3.5TS402       |        |        | .000   | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF069) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F3065.3.5TS402 | .000   | .000   | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF067) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F3065.3.5TS402 | .000   | -2.000 | .000   | .000 | BREF                  | 936.6800  | IN.    |
| (TJF068) | △      | (CA-8) K3V9.1.2TS5H15.6.1F3065.3.5TS402 | .000   | -4.000 | .000   | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |   |        |        |        |      | YMRP                  | .0000     | IN.Y0  |
|          |        |   |        |        |        |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |        |        |        |      | SCALE                 | .0405     |        |

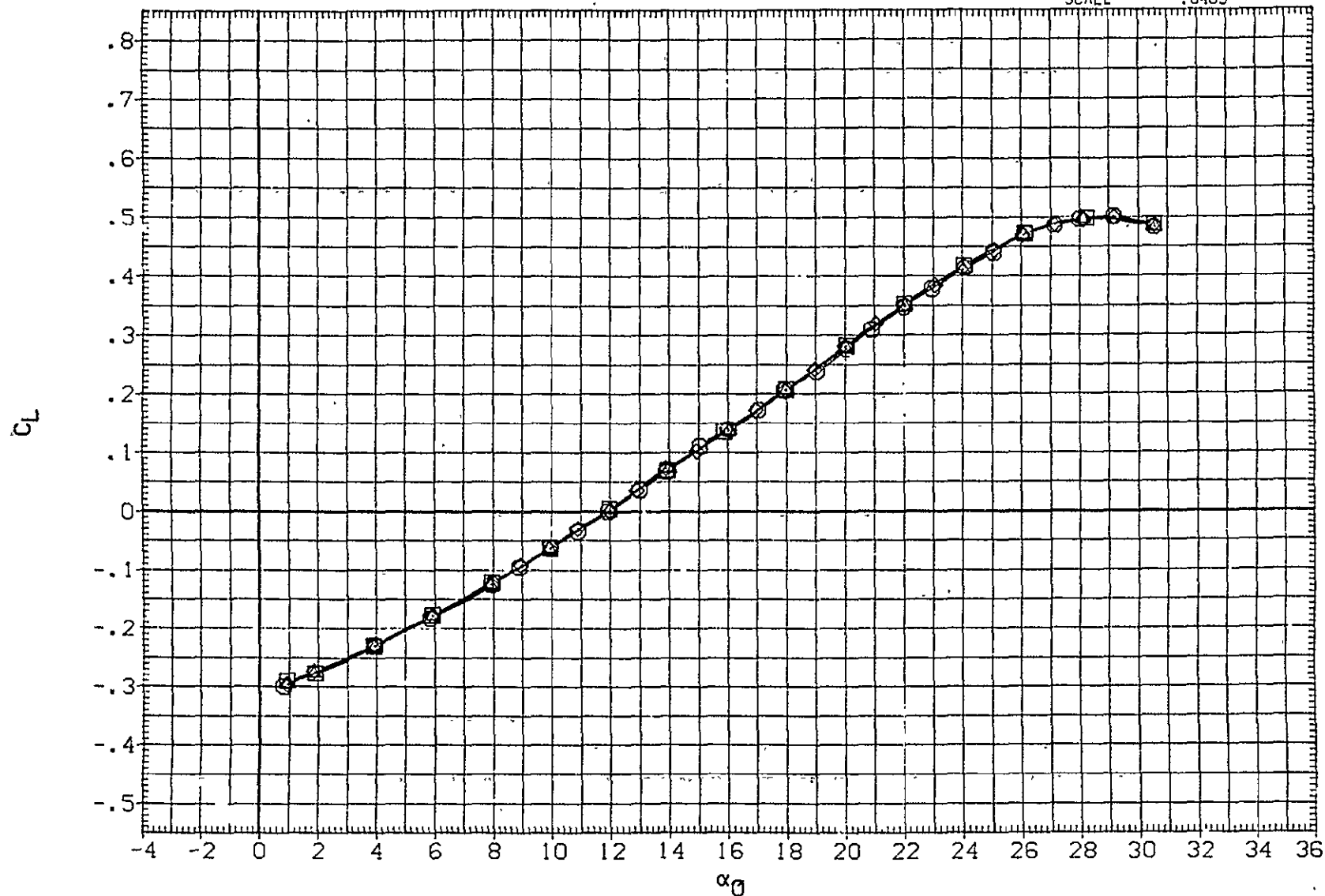


FIG 243 ALT CONFIG. STABILIZER EFFECTIVENESS. FLAPS 30, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF072) | □      | (CA-8) K3V9.1.2TS5 F3065.3.5TS402       |        |        | .000   | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF069) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F3065.3.5TS402 |        |        | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF067) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F3065.3.5TS402 | .000   | .000   | .000   | .000 | BREF                  | 936.6800  | IN.    |
| (TJF068) | △      | (CA-8) K3V9.1.2TS5H15.6.1F3065.3.5TS402 | .000   | -2.000 | .000   | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |   | .000   | -4.000 | .000   | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |   |        |        |        |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |        |        |        |      | SCALE                 | .0405     |        |

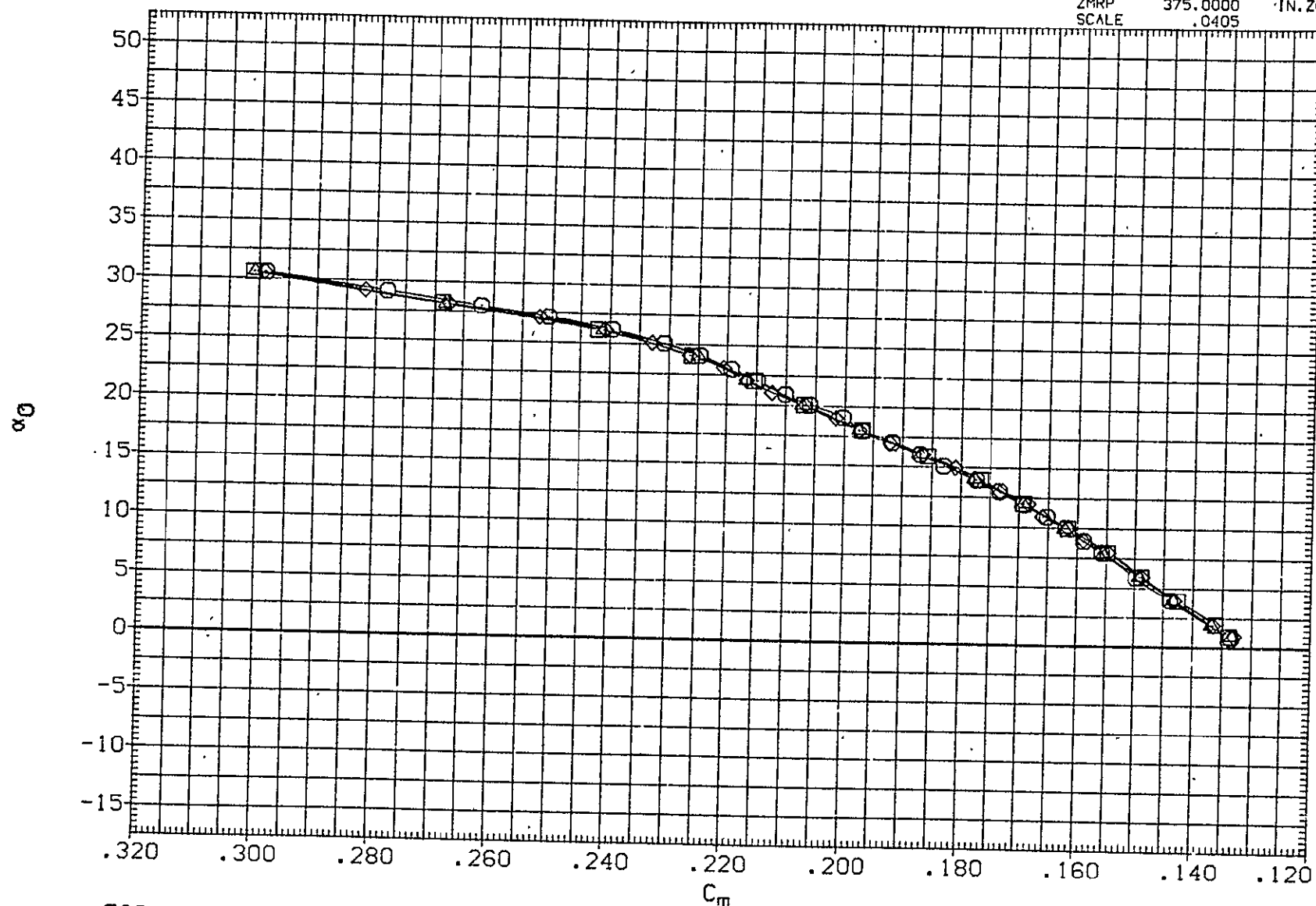


FIG 243 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 30, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |                  |
|----------|--------|---|--------|--------|--------|------|-----------------------|------------------|
| (TJF072) | ○      | (CA-8) K3V9.1.2TSS F30G5.3.5TS402       |        |        | .000   | .000 | SREF                  | 2690.0000 SQ.FT. |
| (TJF069) | □      | (CA-8) K3V9.1.2TSSH15.6.1F30G5.3.5TS402 |        |        | .000   | .000 | LREF                  | 474.8100 IN.     |
| (TJF067) | ◇      | (CA-8) K3V9.1.2TSSH15.6.1F30G5.3.5TS402 | .000   | .000   | .000   | .000 | BREF                  | 936.6800 IN.     |
| (TJF068) | △      | (CA-8) K3V9.1.2TSSH15.6.1F30G5.3.5TS402 | .000   | -2.000 | .000   | .000 | XMRF                  | 1109.0000 IN.X0  |
|          |        |   | .000   | -4.000 | .000   | .000 | YMRF                  | .0000 IN.Y0      |
|          |        |   |        |        |        |      | ZMRF                  | 375.0000 IN.Z0   |
|          |        |   |        |        |        |      | SCALE                 | .0405            |

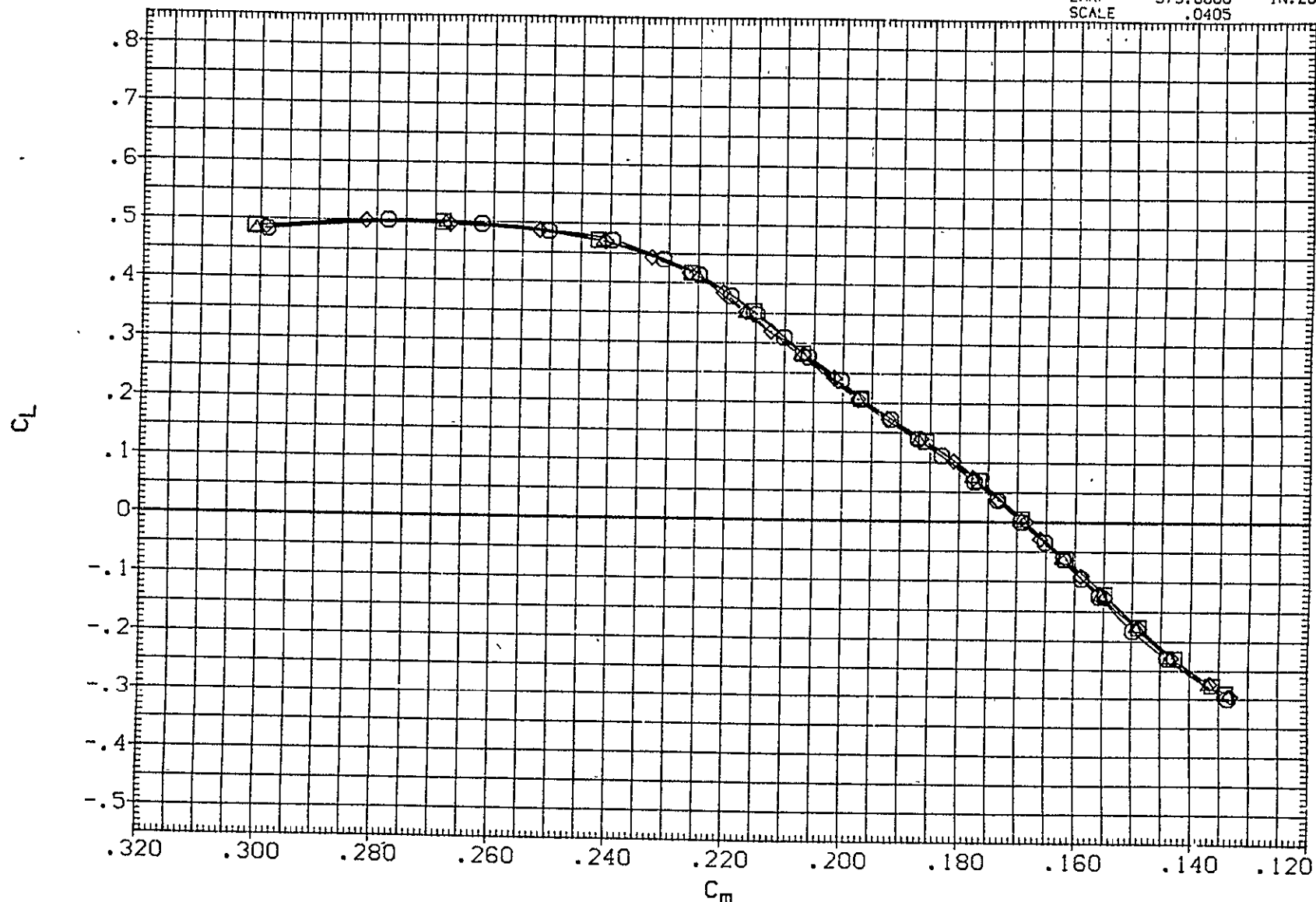


FIG 243 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 30, IORB=6, TC OFF, ELEV=-5  
 ORBITER BALANCE DATA-ALPHA SWEEPS  
 (A)MACH = .15

REPRODUCIBILITY OF THE  
 ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | DTAB   | BDFLAP | BETA | REFERENCE INFORMATION |                  |
|----------|--------|---|--------|--------|--------|------|-----------------------|------------------|
| (TJF072) | ○      | (CA-8) K3V9.1.2TS5 F30G5.3.5TS402       |        |        | .000   | .000 | SREF                  | 2690.0000 SQ.FT. |
| (TJF069) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000   | .000   | .000   | .000 | LREF                  | 474.8100 IN.     |
| (TJF067) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000   | -2.000 | .000   | .000 | BREF                  | 936.6800 IN.     |
| (TJF068) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000   | -4.000 | .000   | .000 | XMRP                  | 1109.0000 IN.X0  |
|          |        |   |        |        |        |      | YMRP                  | .0000 IN.Y0      |
|          |        |   |        |        |        |      | ZMRP                  | 375.0000 IN.Z0   |
|          |        |   |        |        |        |      | SCALE                 | .0405            |

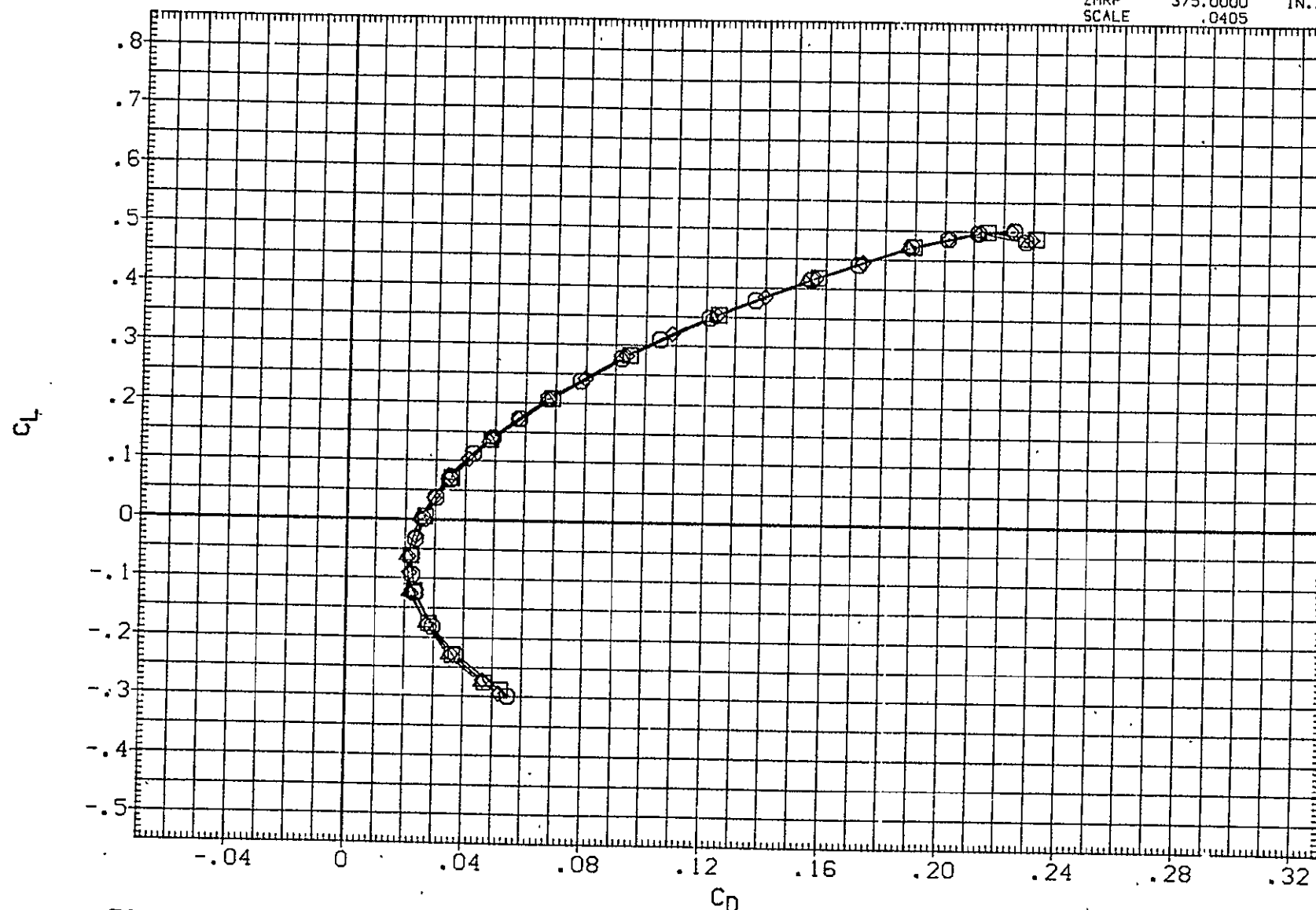


FIG 243 ALT CONFIG. STABILIZER EFFECTIVENESS. FLAPS 30, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               |
|----------|--------|---|
| (TJF067) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 |
| (TJF071) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30 TS402      |

| ELEVTR | STAB   | BDFLAP | BFTA |
|--------|--------|--------|------|
| .000   | -2.000 | .000   | .000 |
| .000   | -2.000 | .000   | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | SQ.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN.X0  |
| YMRP                  | .0000     | IN.Y0  |
| ZMRP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

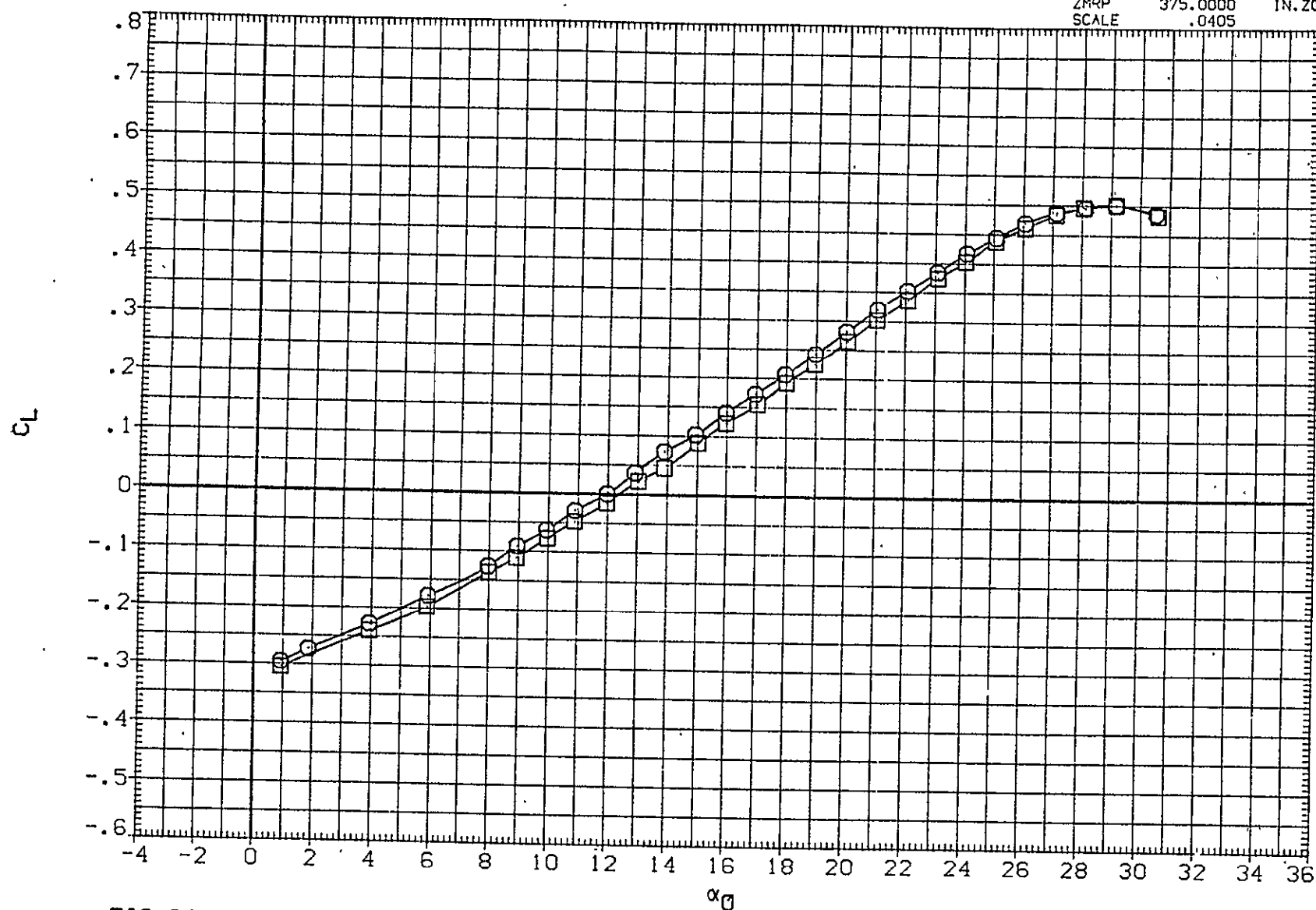


FIG. 244 ALT CONFIG. EFFECT OF LANDING GEAR,  
ORBITER BALANCE DATA-ALPHA SWEEPS

FLAPS 30, IORB=6, TC OFF, ELEV=-5

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               |
|----------|--------|---|
| (TJF067) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 |
| (TJF071) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30 TS402      |

| ELEVTR | STAB   | BD FLAP | BFTA |
|--------|--------|---------|------|
| .000   | -2.000 | .000    | .000 |
| .000   | -2.000 | .000    | .000 |

| REFERENCE INFORMATION |           |         |
|-----------------------|-----------|---------|
| SREF                  | 2690.0000 | 50. FT. |
| LREF                  | 474.8100  | IN.     |
| BREF                  | 936.6800  | IN.     |
| XMRP                  | 1109.0000 | IN. X0  |
| YMRP                  | .0000     | IN. Y0  |
| ZMRP                  | 375.0000  | IN. Z0  |
| SCALE                 | .0405     |         |

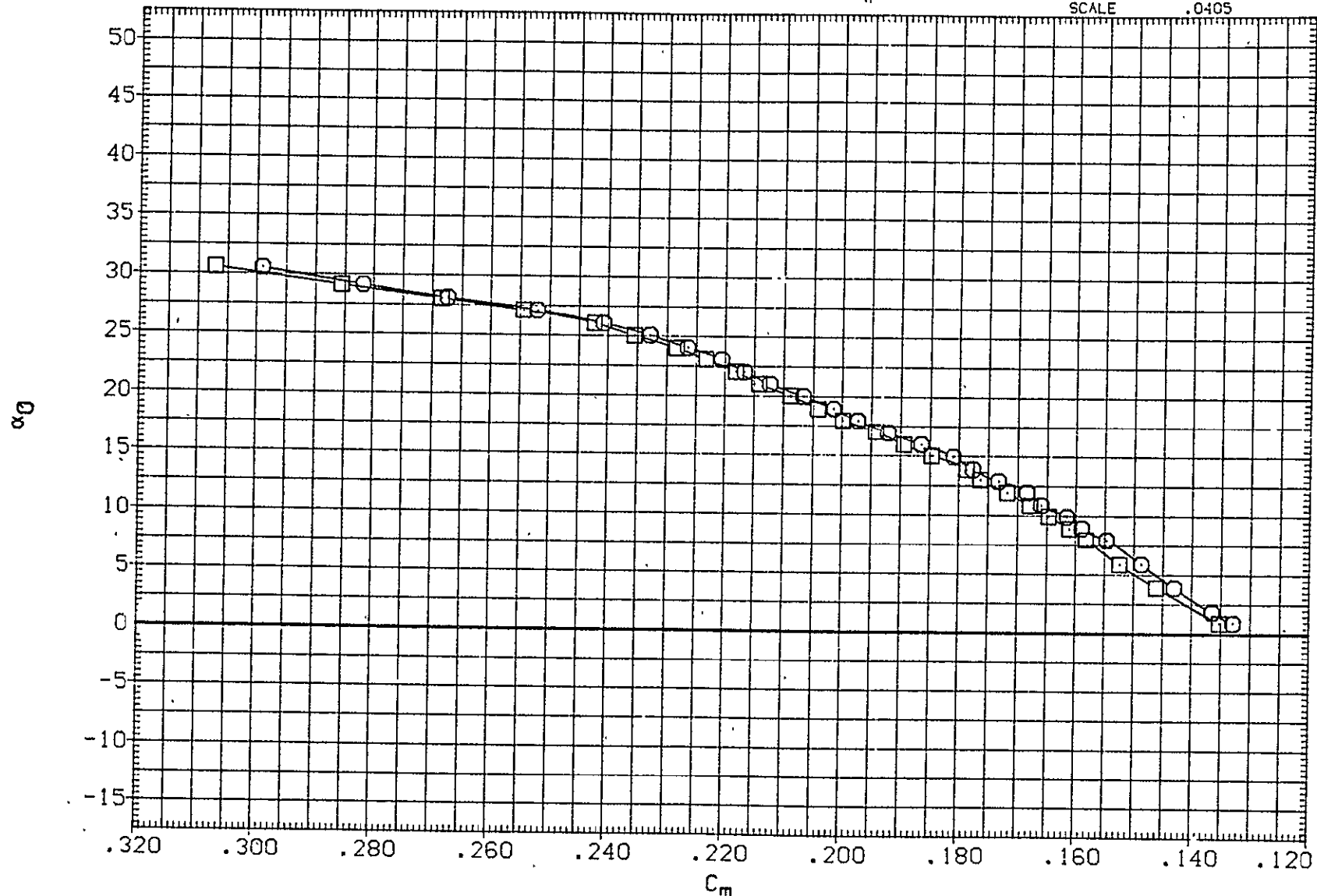


FIG 244 ALT CONFIG. EFFECT OF LANDING GEAR, FLAPS 30, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               |
|----------|--------|---|
| (TJF067) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 |
| (TJF071) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30 TS402      |

| ELEVTR | STAB   | BOFLAP | BFTA |
|--------|--------|--------|------|
| .000   | -2.000 | .000   | .000 |
| .000   | -2.000 | .000   | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | 50.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMPP                  | 1109.0000 | IN.X0  |
| YMPP                  | .0000     | IN.Y0  |
| ZMPP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

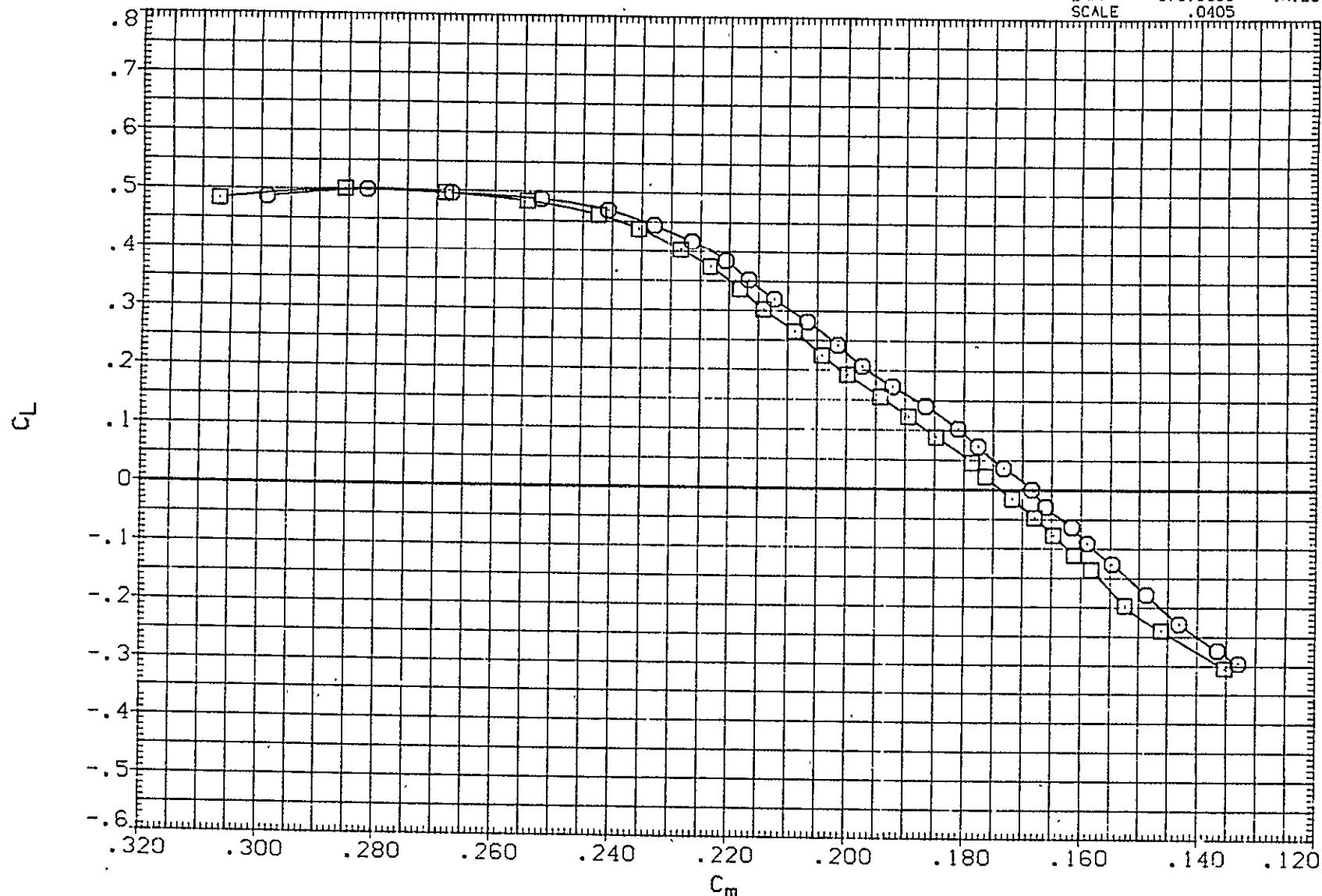


FIG 244 ALT CONFIG. EFFECT OF LANDING GEAR, ORBITER BALANCE DATA-ALPHA SWEEPS FLAPS 30, IORB=6, TC OFF, ELEV=-5  
 (A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               |
|----------|--------|---|
| (TJF067) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 |
| (TJF071) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30 TS402      |

| ELEVTR | STAB   | BDFLAP | BETA |
|--------|--------|--------|------|
| .000   | -2.000 | .000   | .000 |
| .000   | -2.000 | .000   | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | 50.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN.X0  |
| YMRP                  | .0000     | IN.Y0  |
| ZMRP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

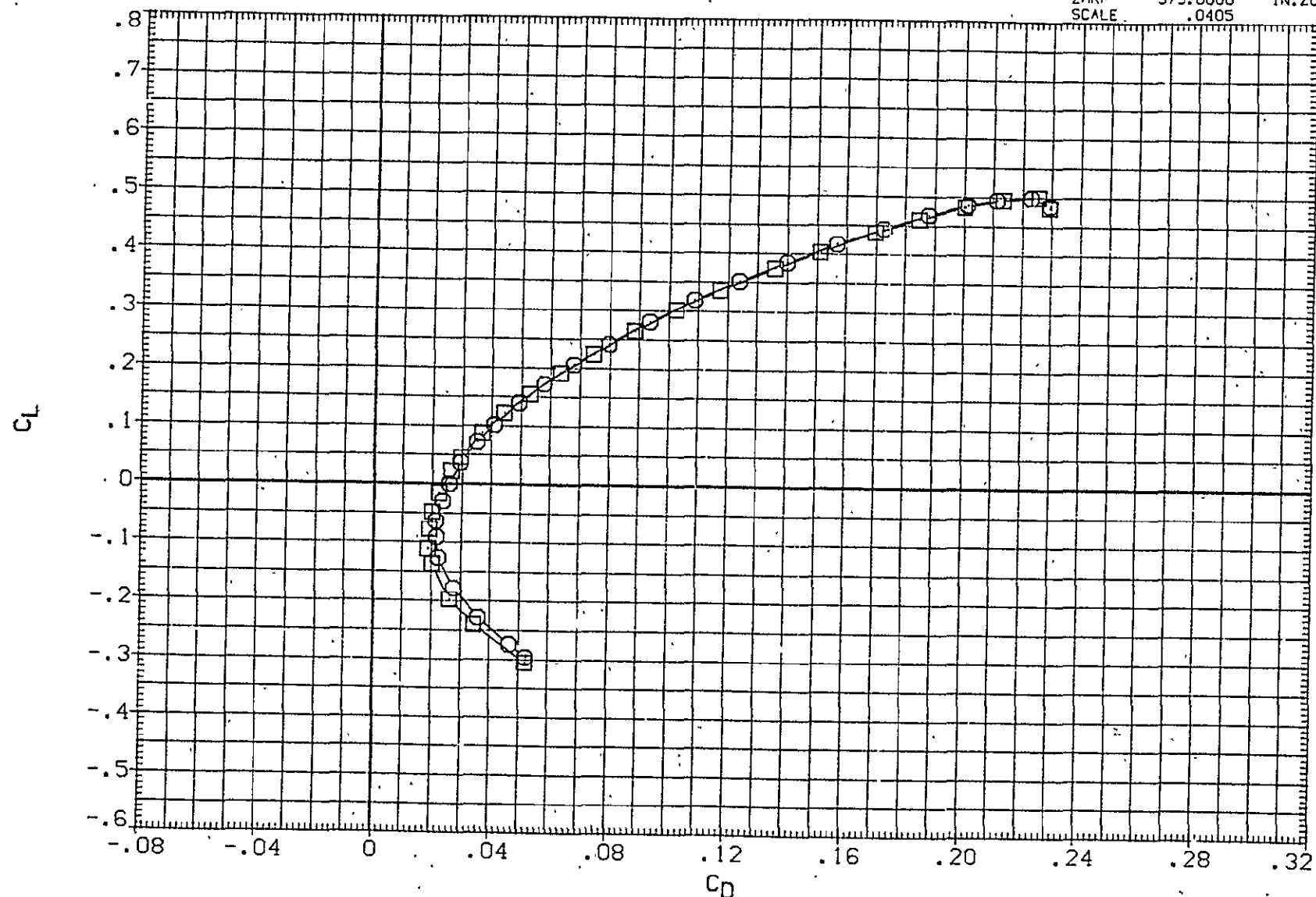


FIG 244 ALT CONFIG. EFFECT OF LANDING GEAR, ORBITER BALANCE DATA-ALPHA SWEEPS FLAPS 30, IORB=6, TC OFF, ELEV=-5

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR  | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|---------|--------|--------|------|-----------------------|-----------|--------|
| (TJF066) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | 17.000  | -2.000 | .000   | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF065) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | 10.000  | -2.000 | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF067) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000    | -2.000 | .000   | .000 | BREF                  | 936.6800  | IN.    |
| (TJF064) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | -10.000 | -2.000 | .000   | .000 | XMRRP                 | 1109.0000 | IN.X0  |
| (TJF063) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | -23.000 | -2.000 | .000   | .000 | YMRRP                 | .0000     | IN.Y0  |
|          |        |   |         |        |        |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |         |        |        |      | SCALE                 | .0405     |        |

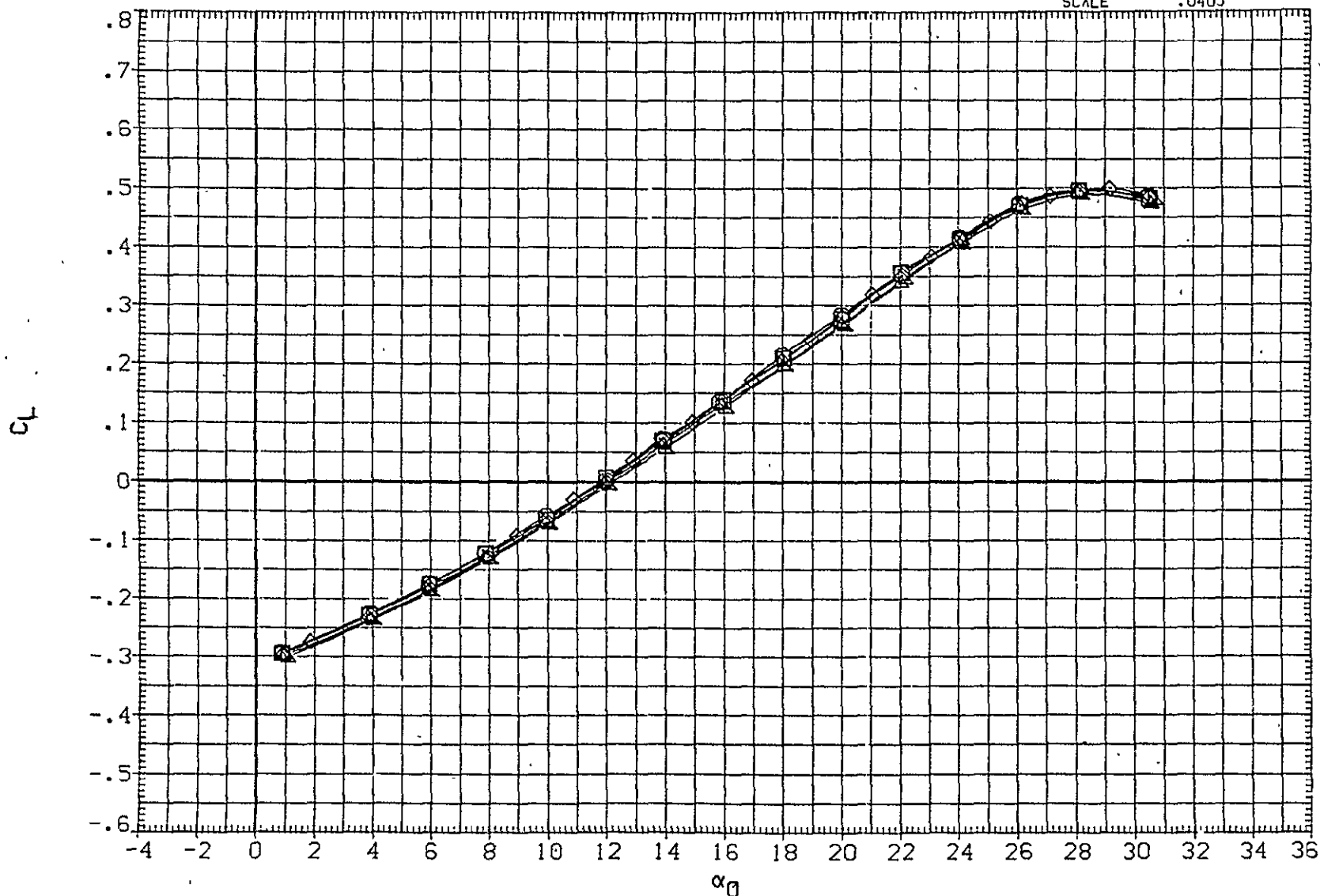


FIG 245 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 30, ICRB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR  | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|---------|--------|--------|------|-----------------------|-----------|--------|
| (TJFC66) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | 17.000  | -2.000 | .000   | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF065) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | 10.000  | -2.000 | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF067) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000    | -2.000 | .000   | .000 | BREF                  | 936.6800  | IN.    |
| (TJF064) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | -10.000 | -2.000 | .000   | .000 | XM RP                 | 1109.0000 | IN.X0  |
| (TJF063) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | -23.000 | -2.000 | .000   | .000 | YM RP                 | .0000     | IN.Y0  |
|          |        |   |         |        |        |      | ZM RP                 | 375.0000  | IN.Z0  |
|          |        |   |         |        |        |      | SCALE                 | .0405     |        |

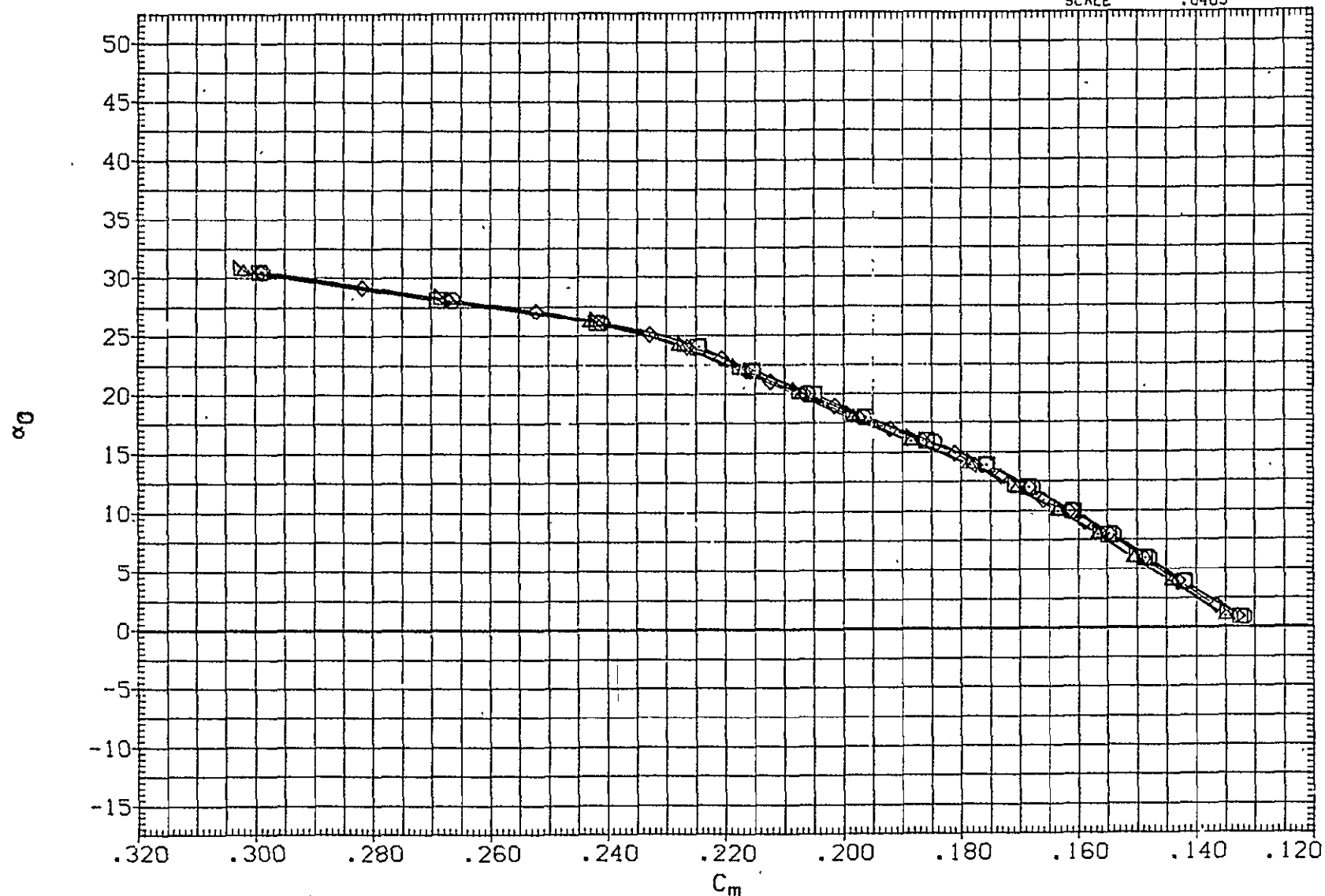


FIG 245 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 30, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR  | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|---------|--------|--------|------|-----------------------|-----------|--------|
| (TJF066) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | 17.000  | -2.000 | .000   | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF065) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | 10.000  | -2.000 | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF067) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000    | -2.000 | .000   | .000 | BREF                  | 936.6800  | IN.    |
| (TJF064) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | -10.000 | -2.000 | .000   | .000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF063) | ▽      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | -23.000 | -2.000 | .000   | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |   |         |        |        |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |         |        |        |      | SCALE                 | .0405     |        |

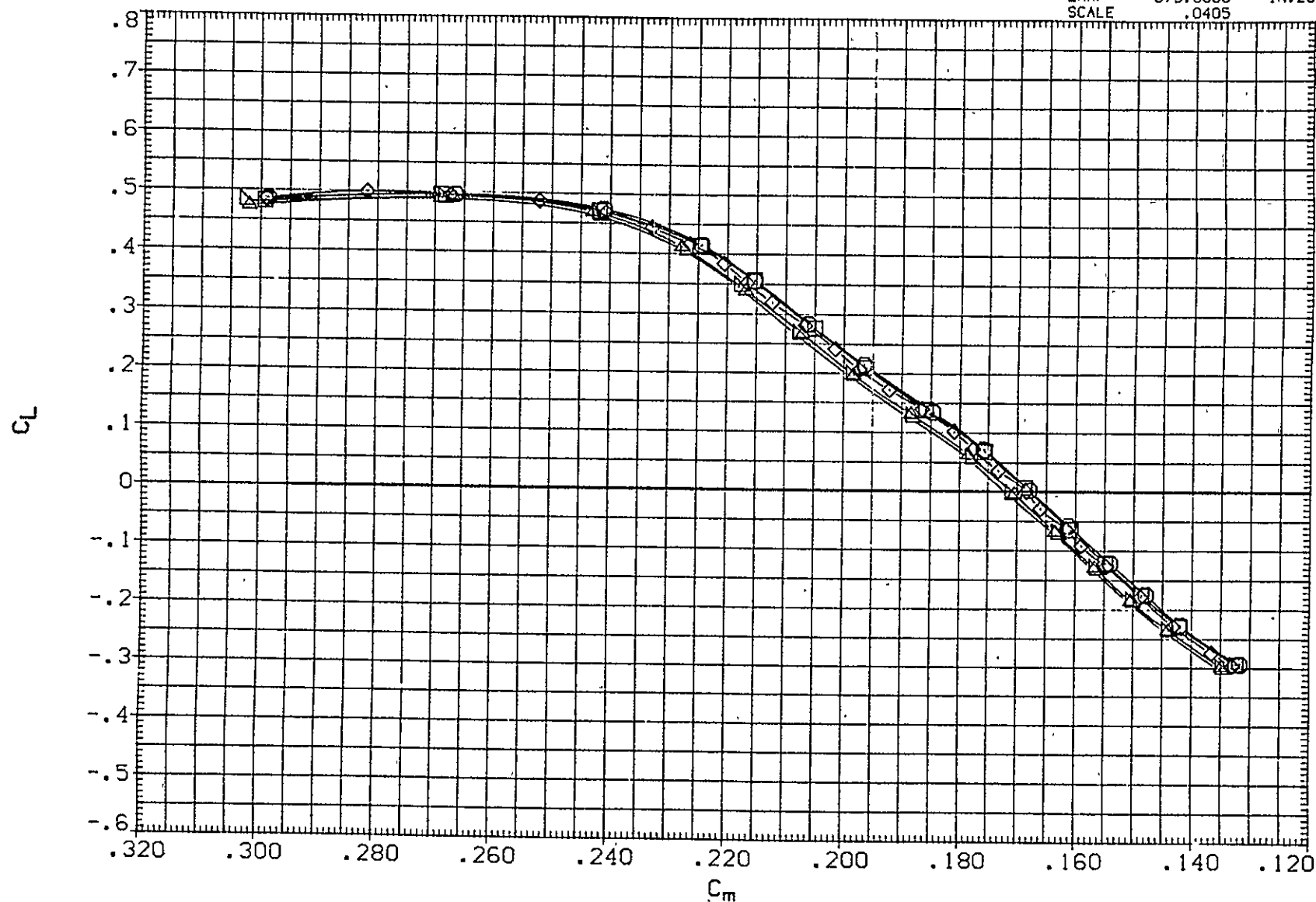


FIG 245 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 30, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR  | STAB   | BDFLAP | BFTA | REFERENCE INFORMATION |           |        |
|----------|--------|---|---------|--------|--------|------|-----------------------|-----------|--------|
| (TJF066) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | 17.000  | -2.000 | .000   | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF065) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | 10.000  | -2.000 | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF067) | ×      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000    | -2.000 | .000   | .000 | BREF                  | 936.6800  | IN.    |
| (TJF064) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | -10.000 | -2.000 | .000   | .000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF063) | ▽      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | -23.000 | -2.000 | .000   | .000 | YMRP                  | .0000     | IN. Y0 |
|          |        |   |         |        |        |      | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |   |         |        |        |      | SCALE                 | .0405     |        |

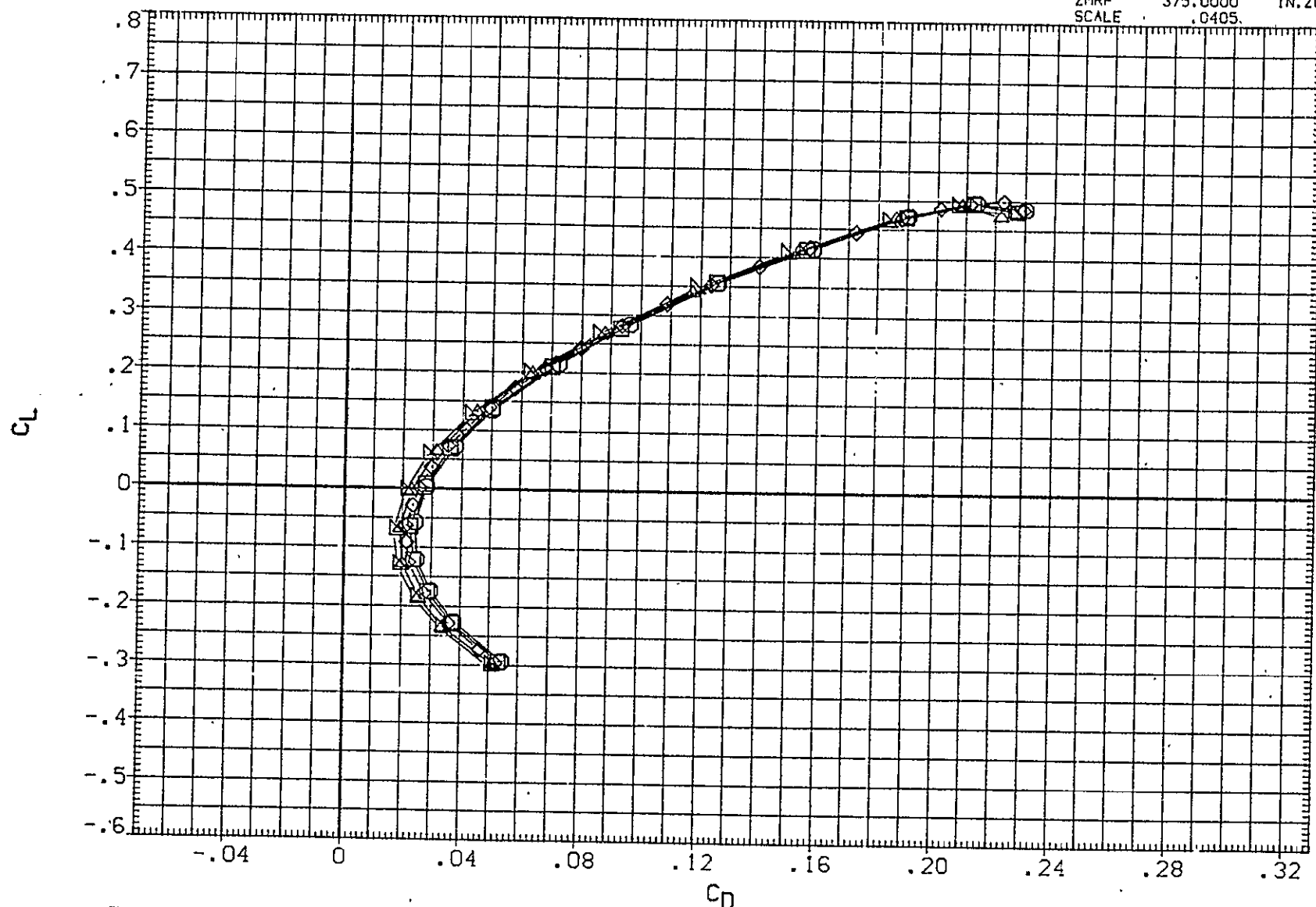


FIG 245 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 30, IORB=6, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION                 |
|----------|--------|---|
| (TJF070) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402SS |
| (TJF067) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402   |

| ELEVTR | STAB   | BDFLAP | BETA |
|--------|--------|--------|------|
| .000   | -2.000 | .000   | .000 |
| .000   | -2.000 | .000   | .000 |

| REFERENCE INFORMATION |                  |
|-----------------------|------------------|
| SREF                  | 2690.0000 SQ.FT. |
| LREF                  | 474.8100 IN.     |
| BREF                  | 936.6800 IN.     |
| XMRP                  | 1109.0000 IN.XO  |
| YMRP                  | .0000 IN.YO      |
| ZMRP                  | 375.0000 IN.ZO   |
| SCALE                 | .0405            |

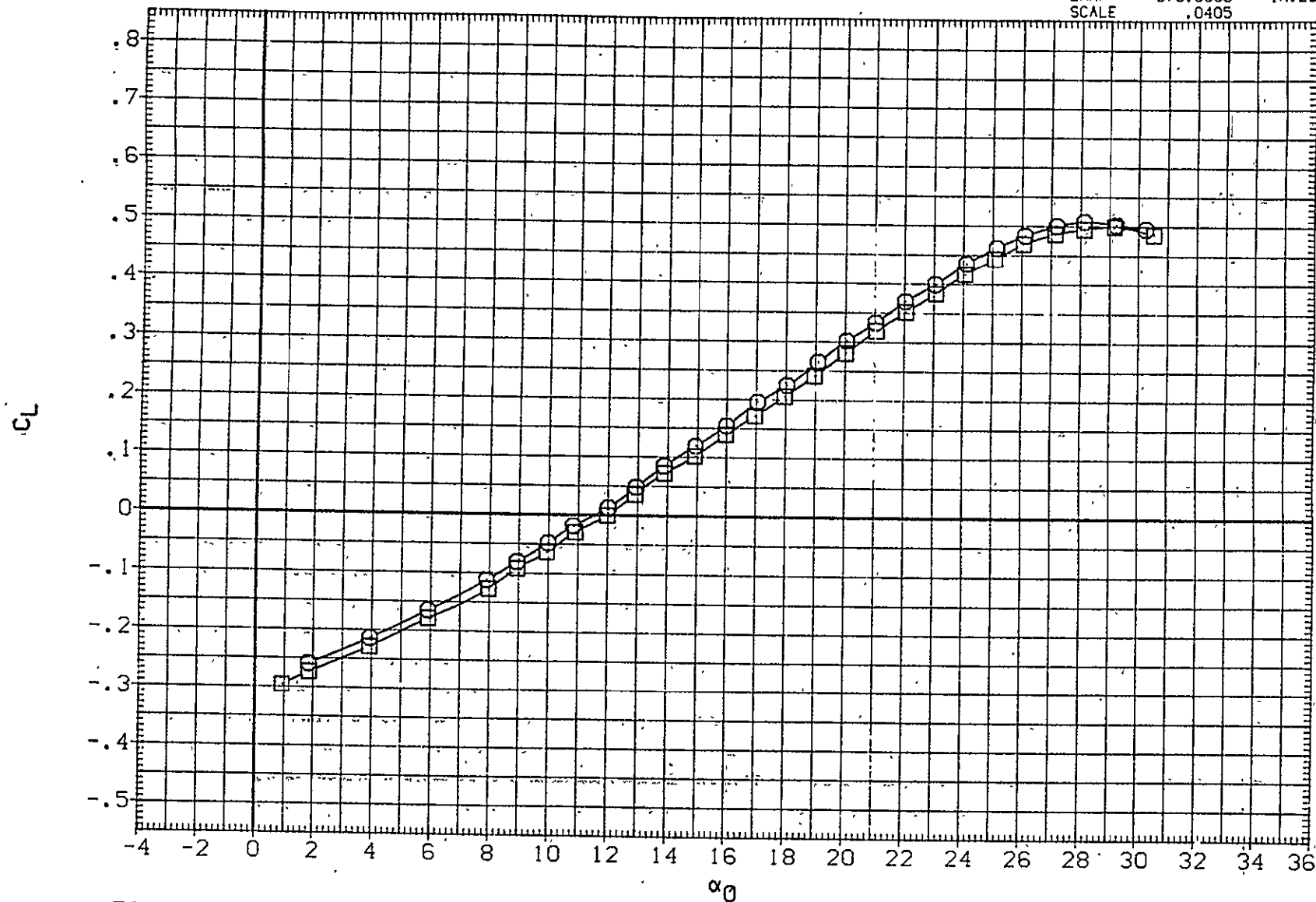


FIG 246 ALT CONFIG. EFFECT OF SUGAR SCOOPS  
ORBITER BALANCE DATA-ALPHA SWEEPS

FLAPS 30, IORB=6, TC OFF, ELEV=-5

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION                 |
|----------|--------|---|
| (TJF070) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402SS |
| (TJF067) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402   |

| ELEVTR | STAB   | BJFLAP | BETA |
|--------|--------|--------|------|
| .000   | -2.000 | .000   | .000 |
| .000   | -2.000 | .000   | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | 50.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN.X0  |
| YMRP                  | .0000     | IN.Y0  |
| ZMRP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

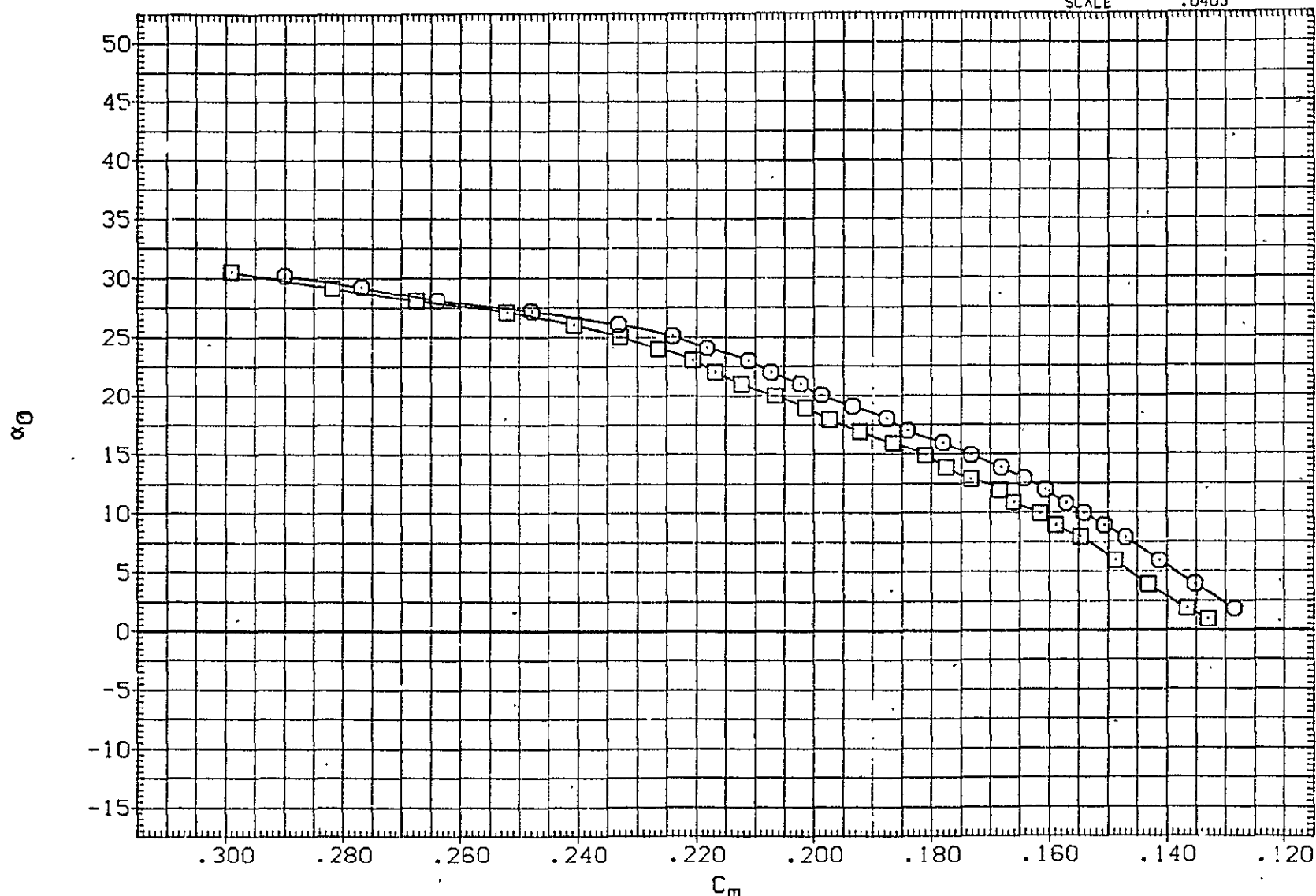


FIG 246 ALT CONFIG. EFFECT OF SUGAR SCOOPS  
ORBITER BALANCE DATA-ALPHA SWEEPS

FLAPS 30, IORB=6, TC OFF, ELEV=-5

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION                 | ELEVTR | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |           |         |
|----------|--------|---|--------|--------|--------|------|-----------------------|-----------|---------|
| (TJF070) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.STS402SS | .000   | 2.000  | .000   | .000 | SREF                  | 2690.0000 | 50. FT. |
| (TJF067) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.STS402   | .000   | -2.000 | .000   | .000 | LREF                  | 474.8100  | IN.     |
|          |        |   |        |        |        |      | BREF                  | 936.6800  | IN.     |
|          |        |   |        |        |        |      | XMRP                  | 1109.0000 | IN. X0  |
|          |        |   |        |        |        |      | YMRP                  | .0000     | IN. Y0  |
|          |        |   |        |        |        |      | ZMRP                  | 375.0000  | IN. Z0  |
|          |        |   |        |        |        |      | SCALE                 | .0405     |         |

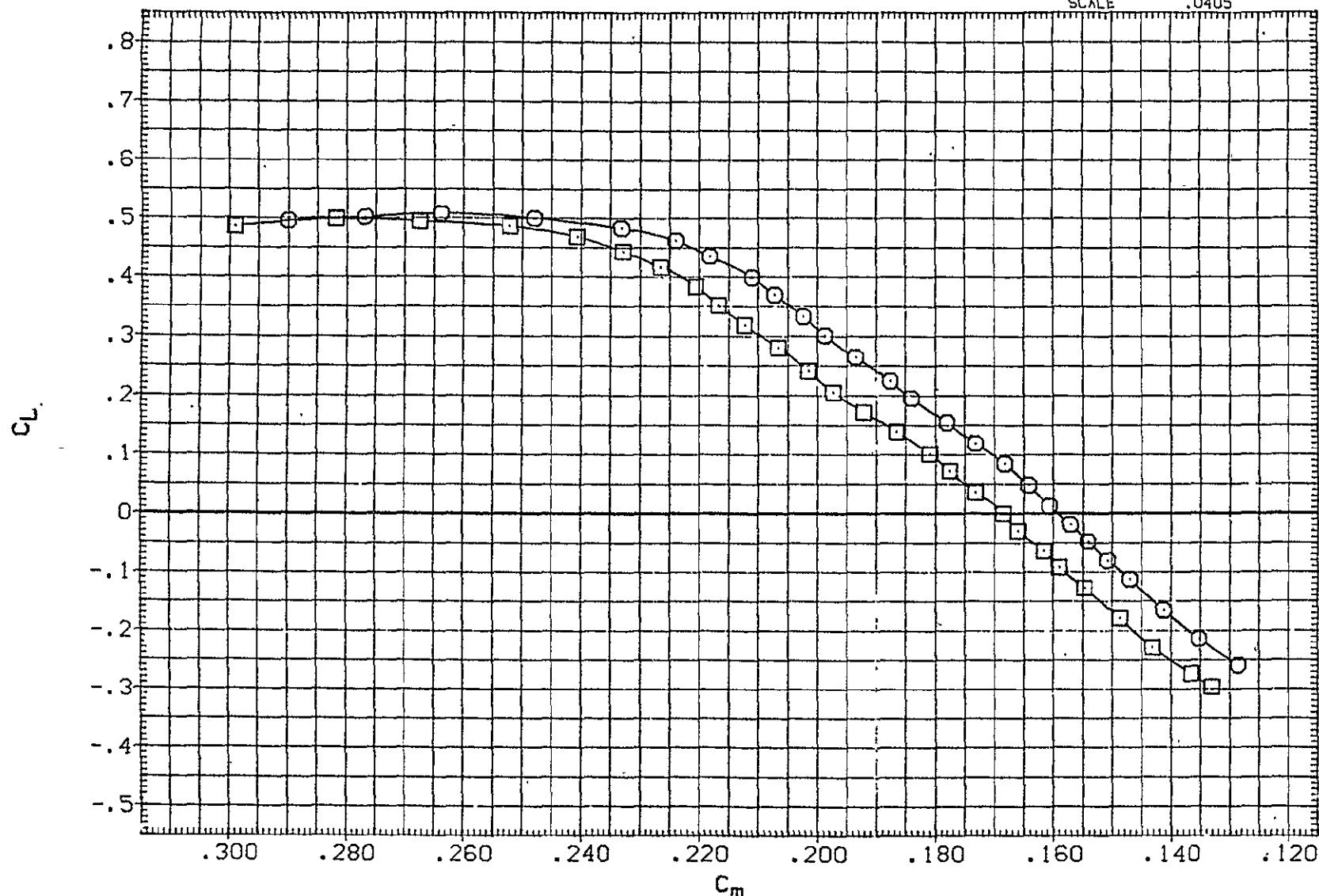


FIG 246 ALT CONFIG. EFFECT OF SUGAR SCOOPS  
ORBITER BALANCE DATA-ALPHA SWEEPS

FLAPS 30. IORB=6. TC OFF. ELEV=-5

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION                 | ELEVTR | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF070) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402SS | .000   | -2.000 | .000   | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF067) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402   | .000   | -2.000 | .000   | .000 | LREF                  | 474.8100  | IN.    |
|          |        |   |        |        |        |      | BREF                  | 936.6800  | IN.    |
|          |        |   |        |        |        |      | XMRP                  | 1109.0000 | IN.X0  |
|          |        |   |        |        |        |      | YMRP                  | .0000     | IN.Y0  |
|          |        |   |        |        |        |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |        |        |        |      | SCALE                 | .0405     |        |

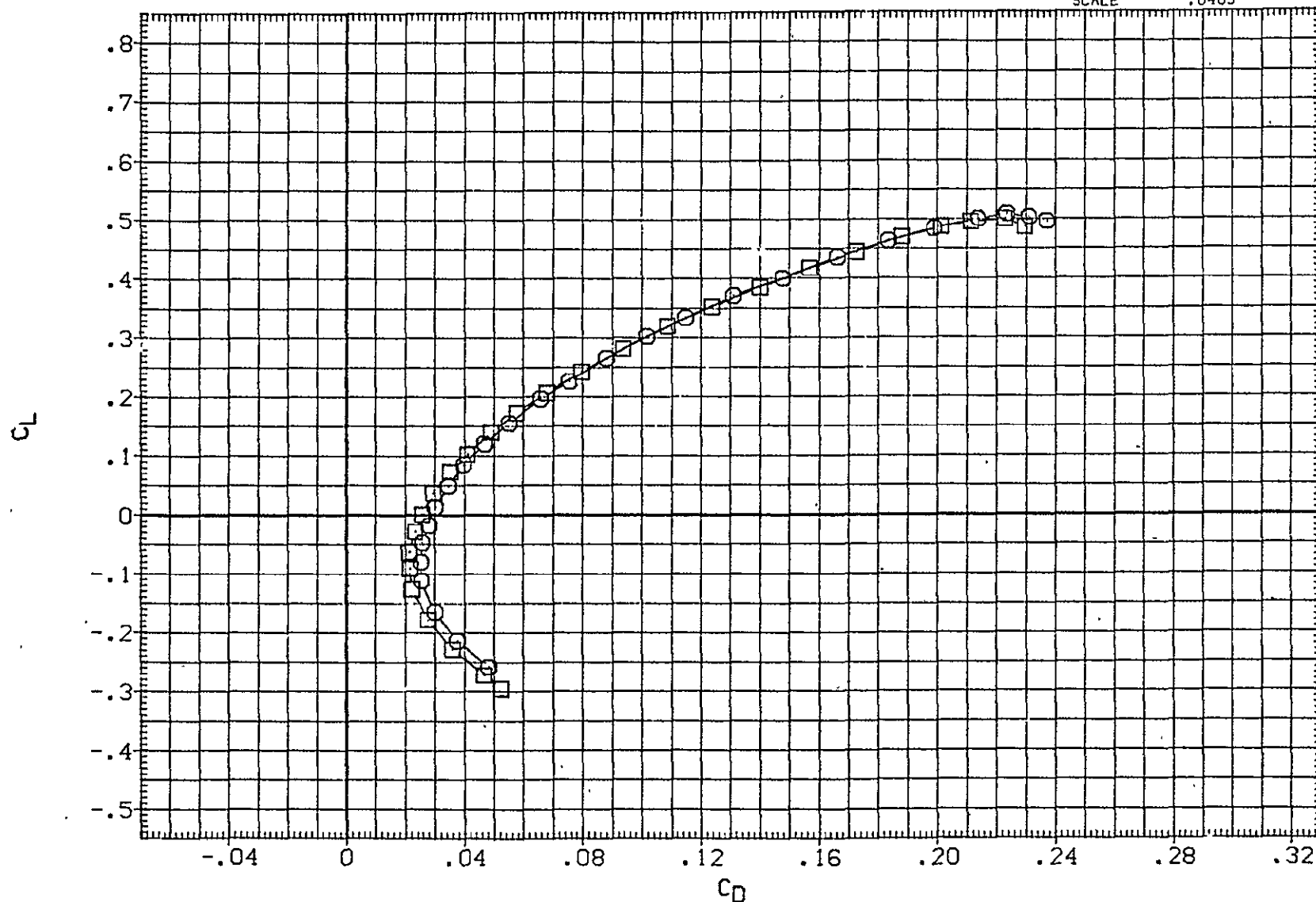


FIG 246 ALT CONFIG. EFFECT OF SUGAR SCOOPS FLAPS 30. IORB=6.TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF087) | ○      | (CA-8) K3V9.1.2TS5 F20TS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF088) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | 3.000  | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF089) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | .000   | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF091) | △      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | -2.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF090) | ▽      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | -4.000 | -11.700 | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |                                   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                   |        |        |         |      | SCALE                 | .0405     |        |

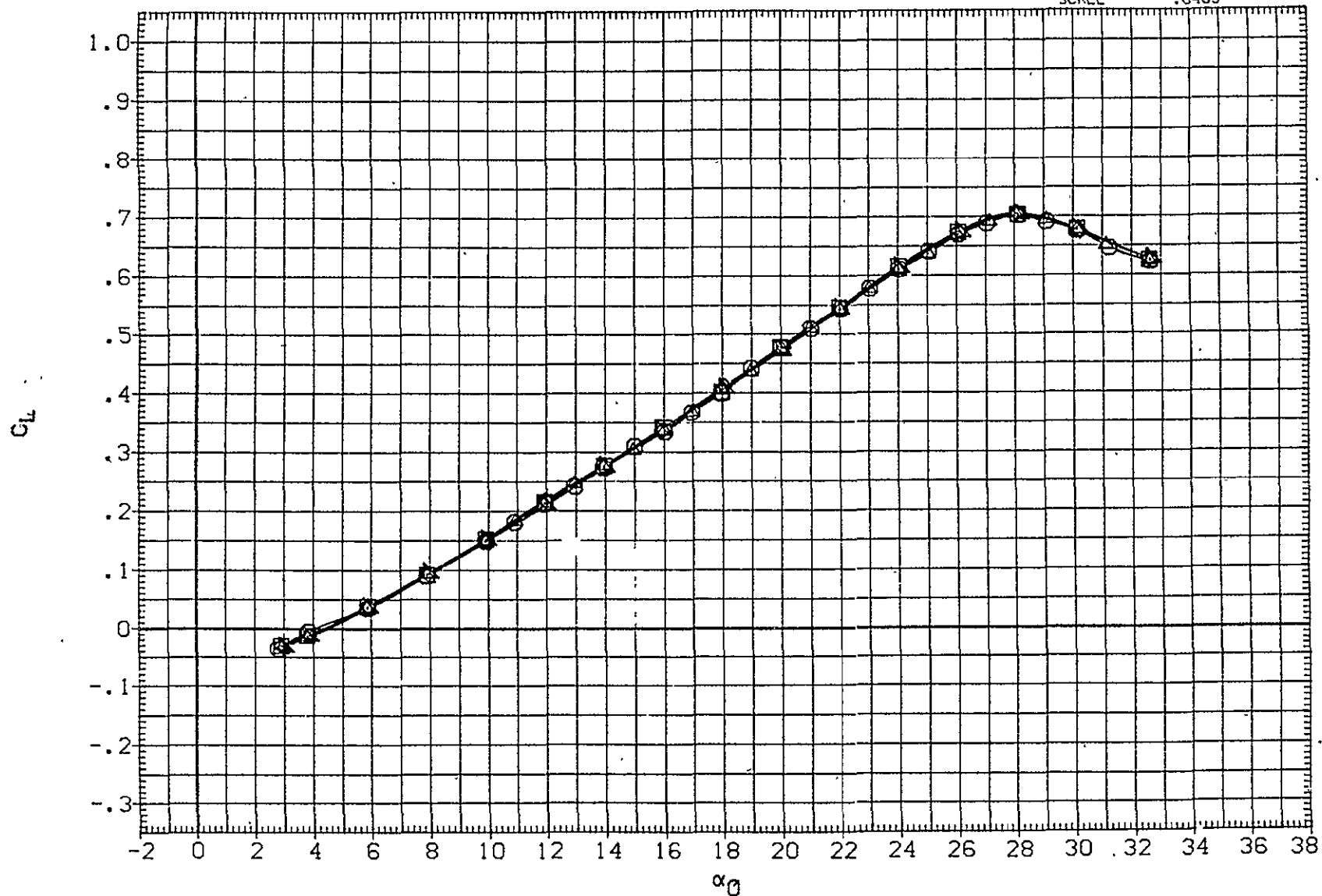


FIG 247 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 20 IORB=8, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF087) | ○      | (CA-8) K3V9.1.2TSS F20TS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF088) | □      | (CA-8) K3V9.1.2TSSH15.6.1F20TS401 | .000   | 3.000  | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF089) | ◇      | (CA-8) K3V9.1.2TSSH15.6.1F20TS401 | .000   | .000   | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF091) | △      | (CA-8) K3V9.1.2TSSH15.6.1F20TS401 | .000   | -2.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF090) | ▽      | (CA-8) K3V9.1.2TSSH15.6.1F20TS401 | .000   | -4.000 | -11.700 | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |                                   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                   |        |        |         |      | SCALE                 | .0405     |        |

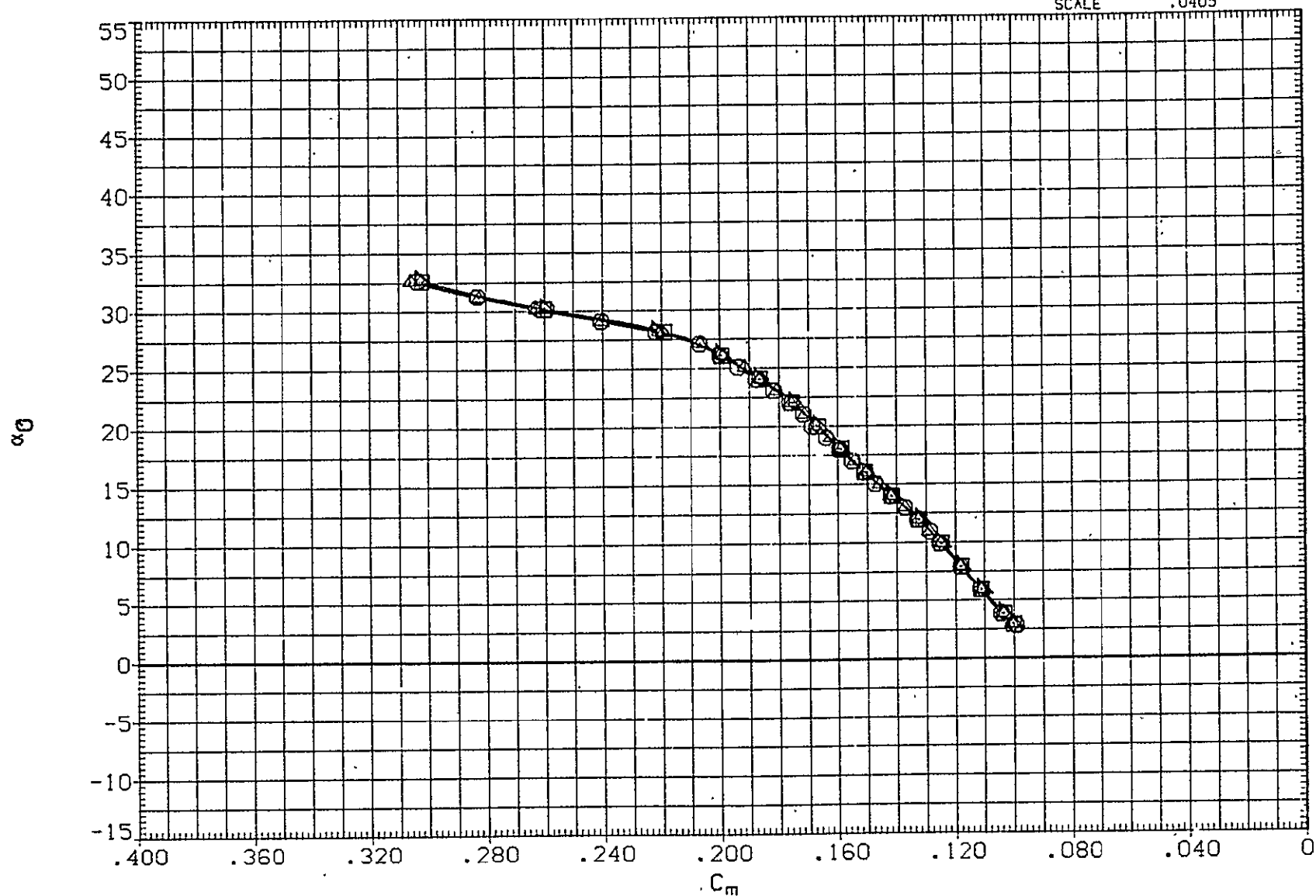


FIG 247 ALT CONFIG. STABILIZER EFFECTIVENESS. FLAPS 20 IORB=8, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF087) | ○      | (CA-8) K3V9.1.2TS5 F20TS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF088) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | 3.000  | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF089) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | .000   | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF091) | △      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | -2.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF090) | ▽      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | -4.000 | -11.700 | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |                                   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                   |        |        |         |      | SCALE                 | .0405     |        |

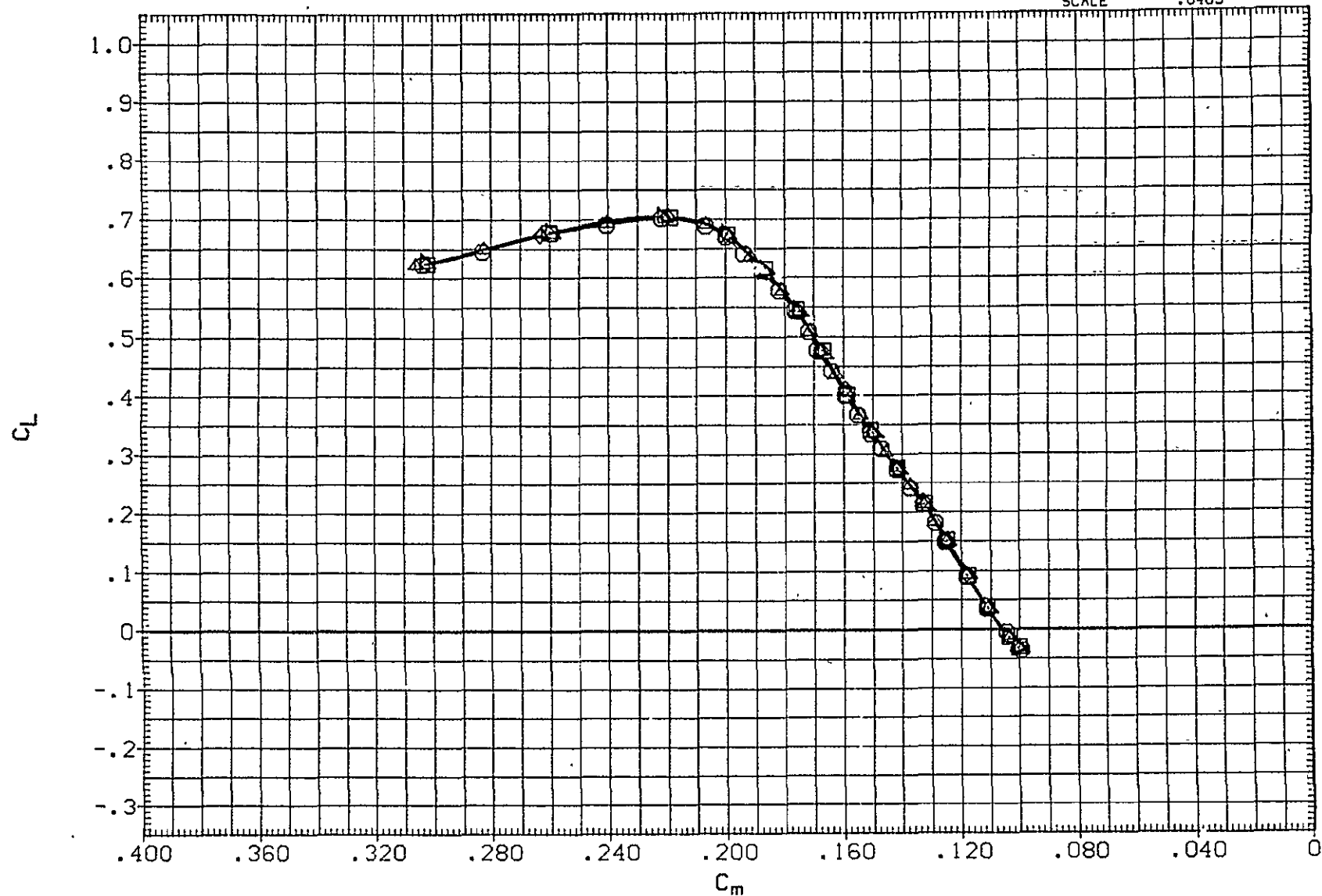


FIG 247 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 20 IORB=8, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF087) | ○      | (CA-8) K3V9.1.2TS5 F20TS401       |        |        | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF088) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | 3.000  | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF089) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | .000   | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF091) | △      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | -2.000 | -11.700 | .000 | XMRF                  | 1109.0000 | IN.X0  |
| (TJF090) | ▽      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 | .000   | -4.000 | -11.700 | .000 | YMRP                  | .0000     | IN.Y0  |
|          |        |                                   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                   |        |        |         |      | SCALE                 | .0405     |        |

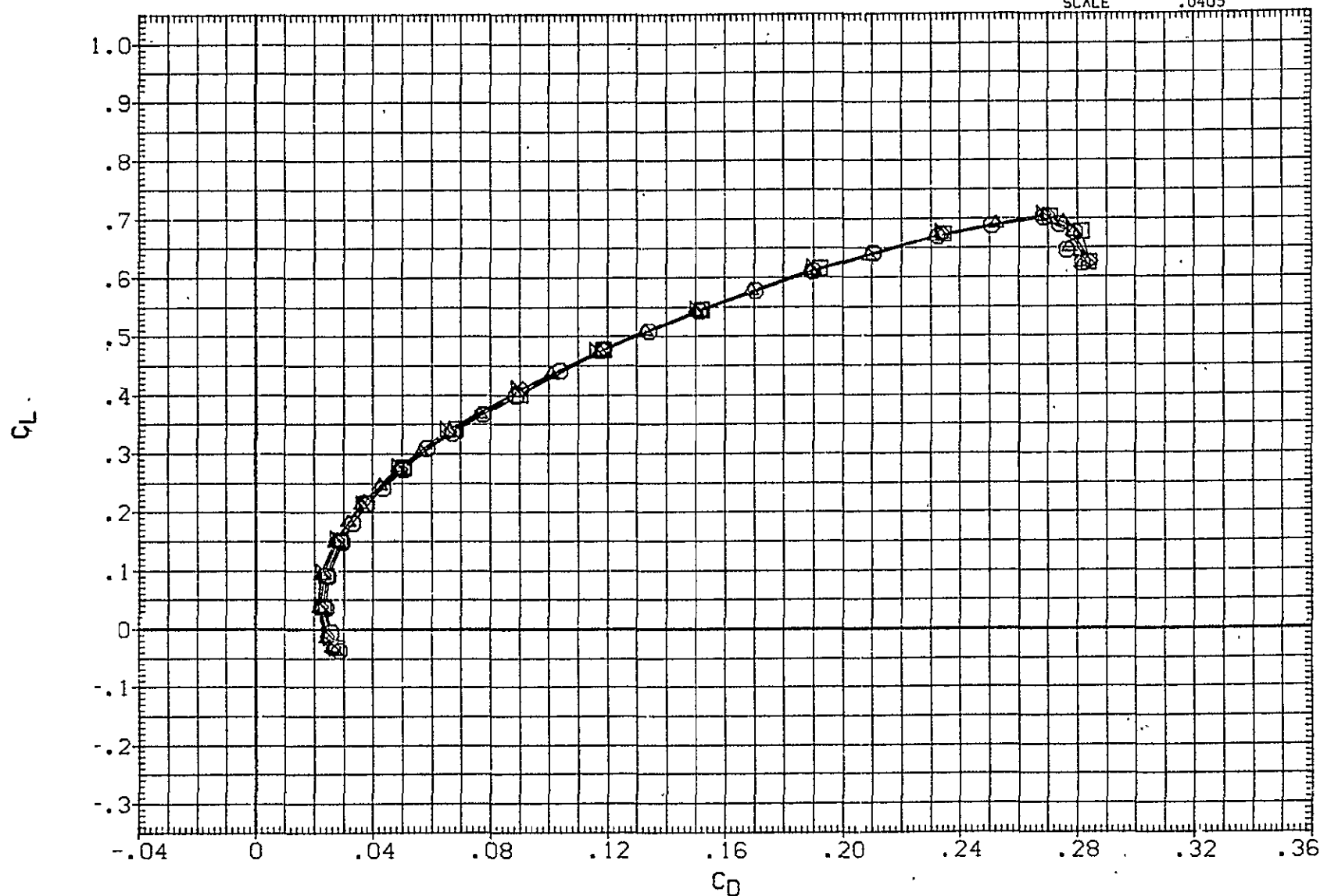


FIG 247 ALT CONFIG. STABILIZER EFFECTIVENESS. FLAPS 20 IORB=8. TC ON. ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         |
|----------|--------|-----------------------------------|
| (TJF091) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 |
| (TJF092) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 |

| ELEVTR  | STAB   | BDFLAP  | BETA |
|---------|--------|---------|------|
| .000    | -2.000 | -11.700 | .000 |
| -23.000 | -2.000 | -11.700 | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | 50.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XM RP                 | 1109.0000 | IN.X0  |
| YM RP                 | .0000     | IN.Y0  |
| ZM RP                 | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

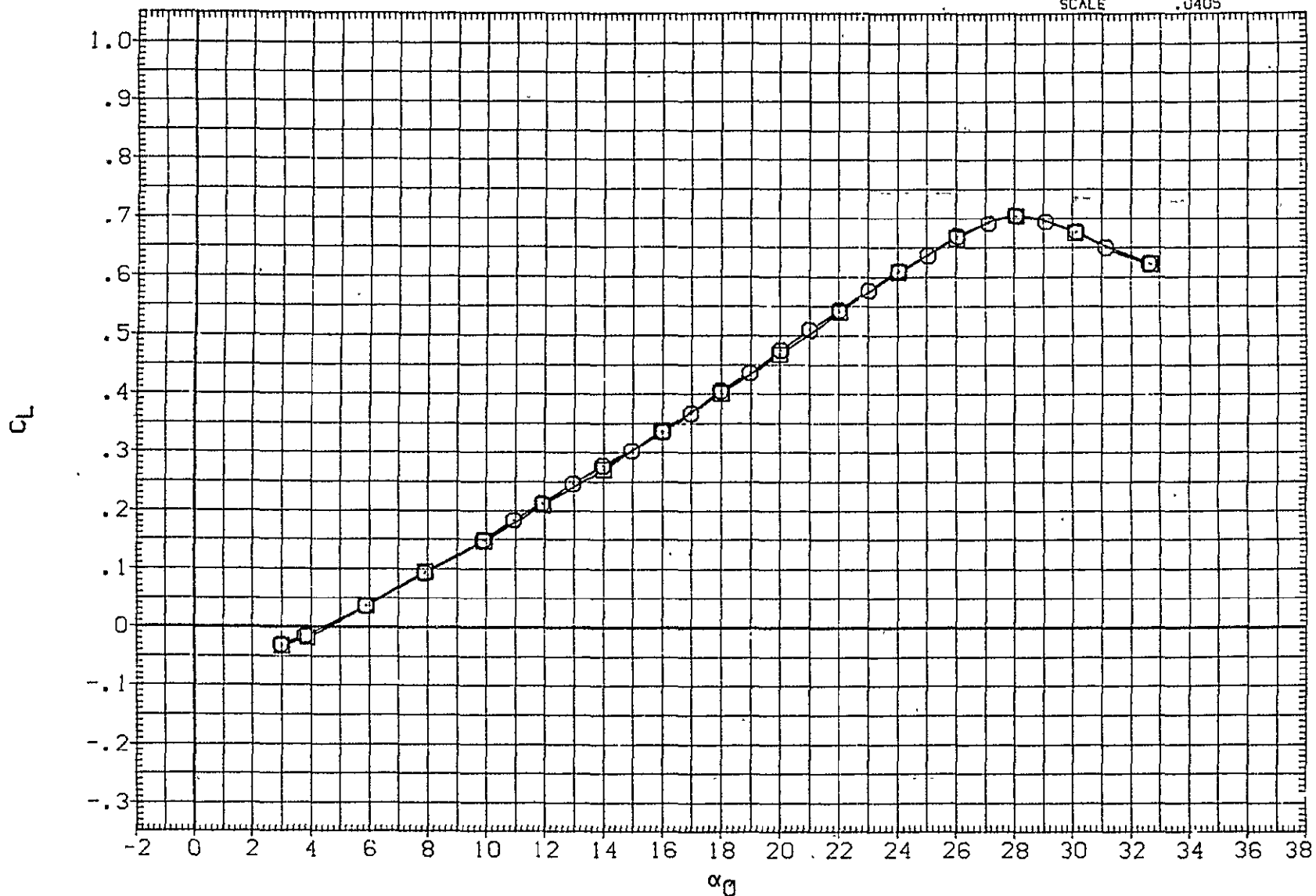


FIG 248 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 20 IORB=8, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         |
|----------|--------|-----------------------------------|
| (TJF091) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 |
| (TJF092) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 |

| ELEVTR  | STAB   | BDFLAP  | BETA |
|---------|--------|---------|------|
| .000    | -2.000 | -11.700 | .000 |
| -23.000 | -2.000 | -11.700 | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | SQ.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN.X0  |
| YMRP                  | .0000     | IN.Y0  |
| ZMRP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

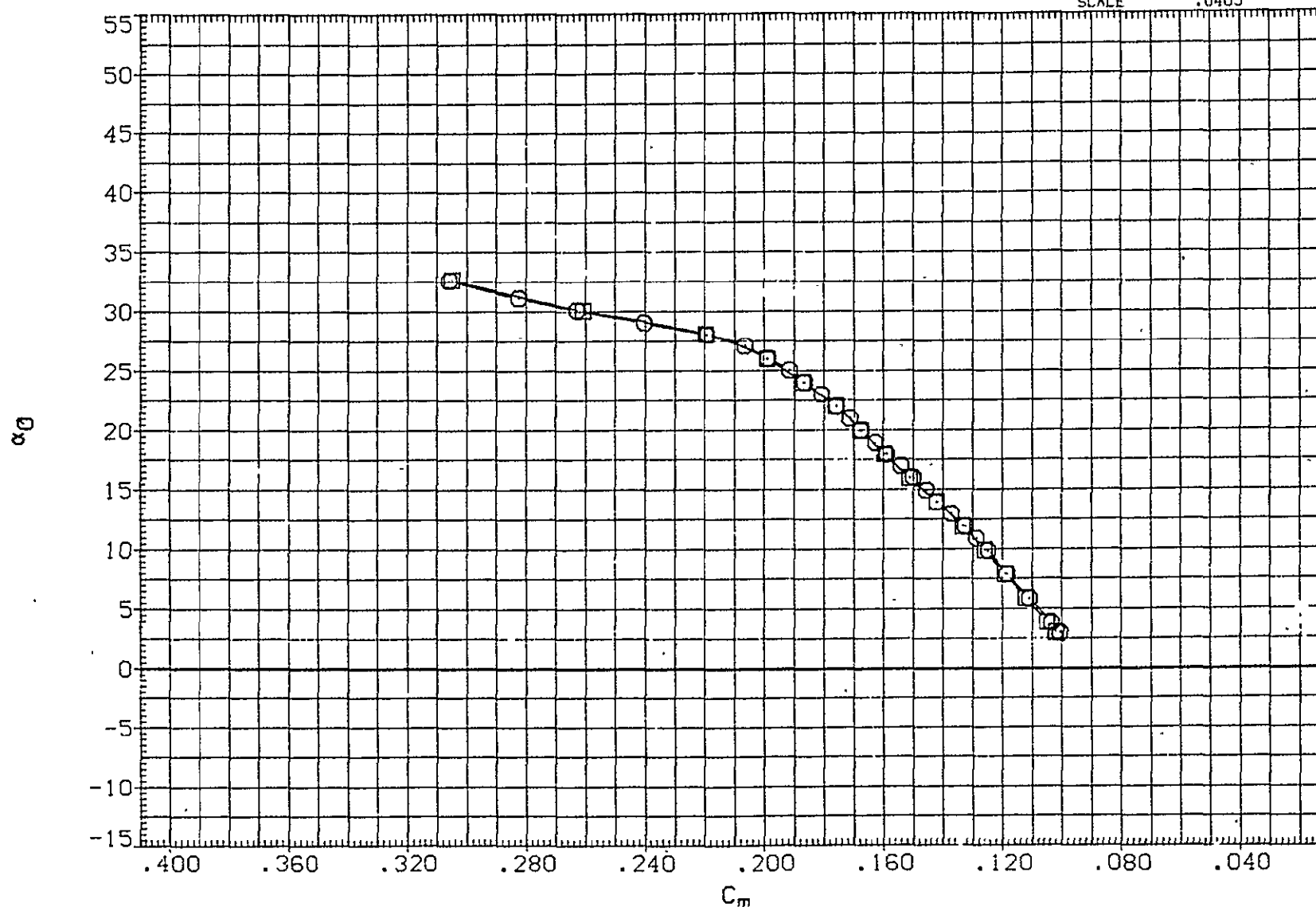


FIG 248 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 20 IORB=8, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         |
|----------|--------|-----------------------------------|
| (TJF091) | ○      | (CA-8) K3V9.1.2TSSH15.6.1F20TS401 |
| (TJF092) | □      | (CA-8) K3V9.1.2TSSH15.6.1F20TS401 |

| ELEVTR  | STAB   | BDFLAP  | BETA |
|---------|--------|---------|------|
| .000    | -2.000 | -11.700 | .000 |
| -23.000 | -2.000 | -11.700 | .000 |

| REFERENCE INFORMATION |                  |
|-----------------------|------------------|
| SPEF                  | 2690.0000 SQ.FT. |
| LREF                  | 474.8100 IN.     |
| BREF                  | 936.6800 IN.     |
| XMRP                  | 1109.0000 IN.X0  |
| YMRP                  | .0000 IN.Y0      |
| ZMRP                  | 375.0000 IN.Z0   |
| SCALE                 | .0405            |

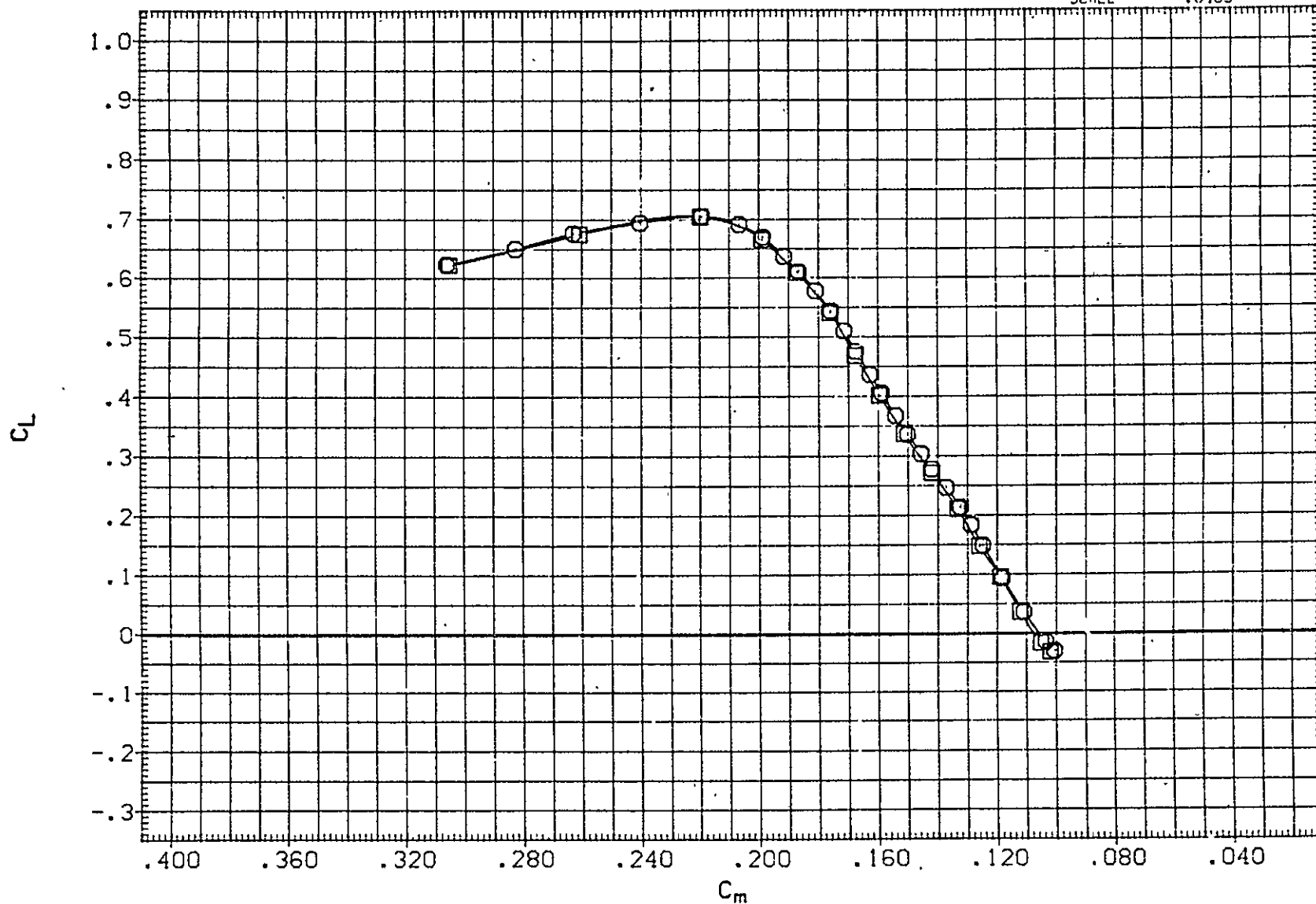


FIG 248 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 20 IORB=8, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         |
|----------|--------|-----------------------------------|
| (TJF091) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 |
| (TJF092) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401 |

| ELEVTR  | STAB   | BOFLAP  | BFTA |
|---------|--------|---------|------|
| .000    | -2.000 | -11.700 | .000 |
| -23.000 | -2.000 | -11.700 | .000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | SO.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN. X0 |
| YMRP                  | .0000     | IN. Y0 |
| ZMRP                  | 375.0000  | IN. Z0 |
| SCALE                 | .0405     |        |

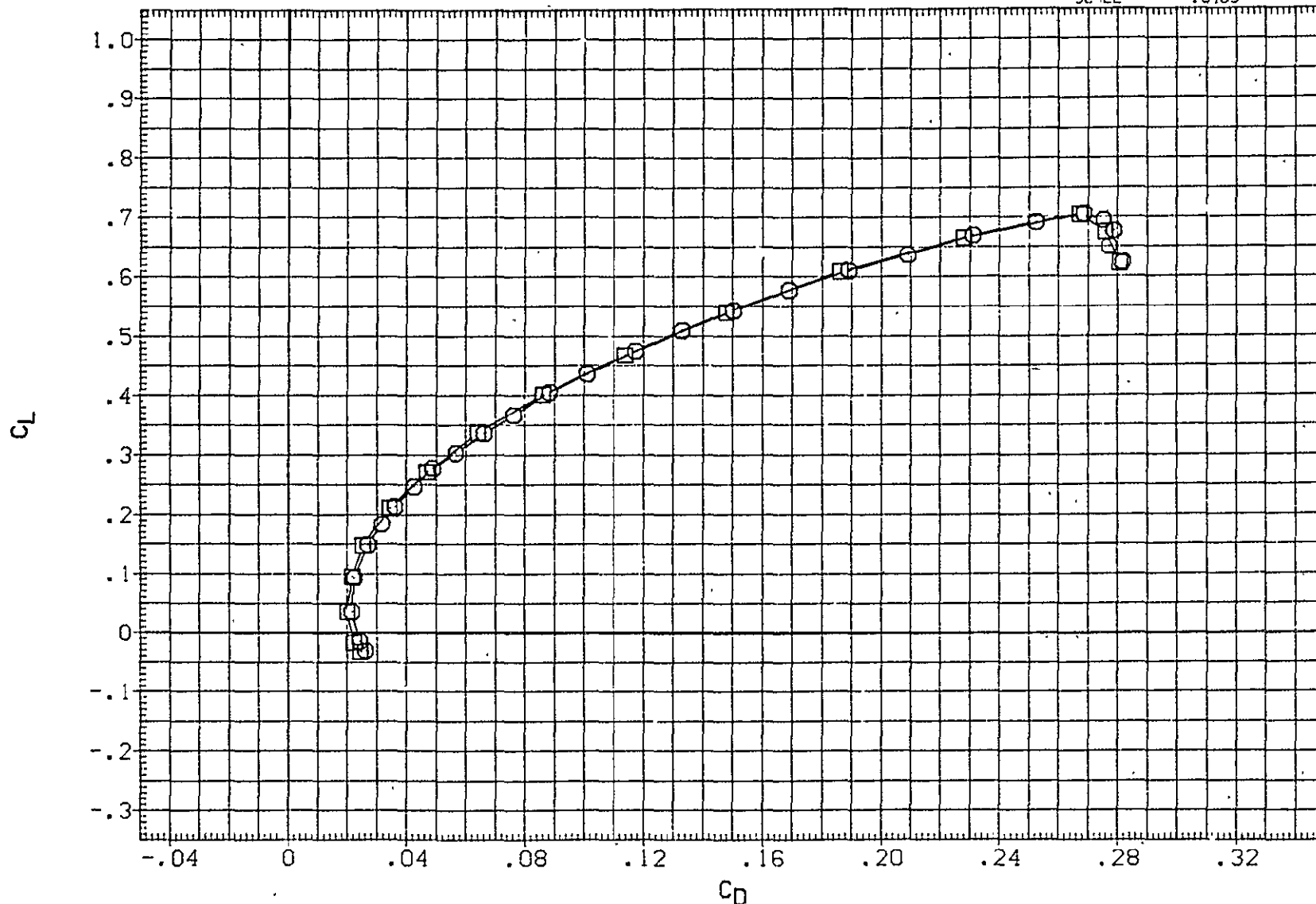


FIG 248 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 20 IORB=8, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

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| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP  | BFTA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF057) | ○      | (CA-8) K3V9.1.2TS5 F30G5.3.5TS401       |        |        |         | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF059) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | .000   | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF060) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF058) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | -4.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |   |        |        |         |      | YMRP                  | .0000     | IN.Y0  |
|          |        |   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |        |        |         |      | SCALE                 | .0405     |        |

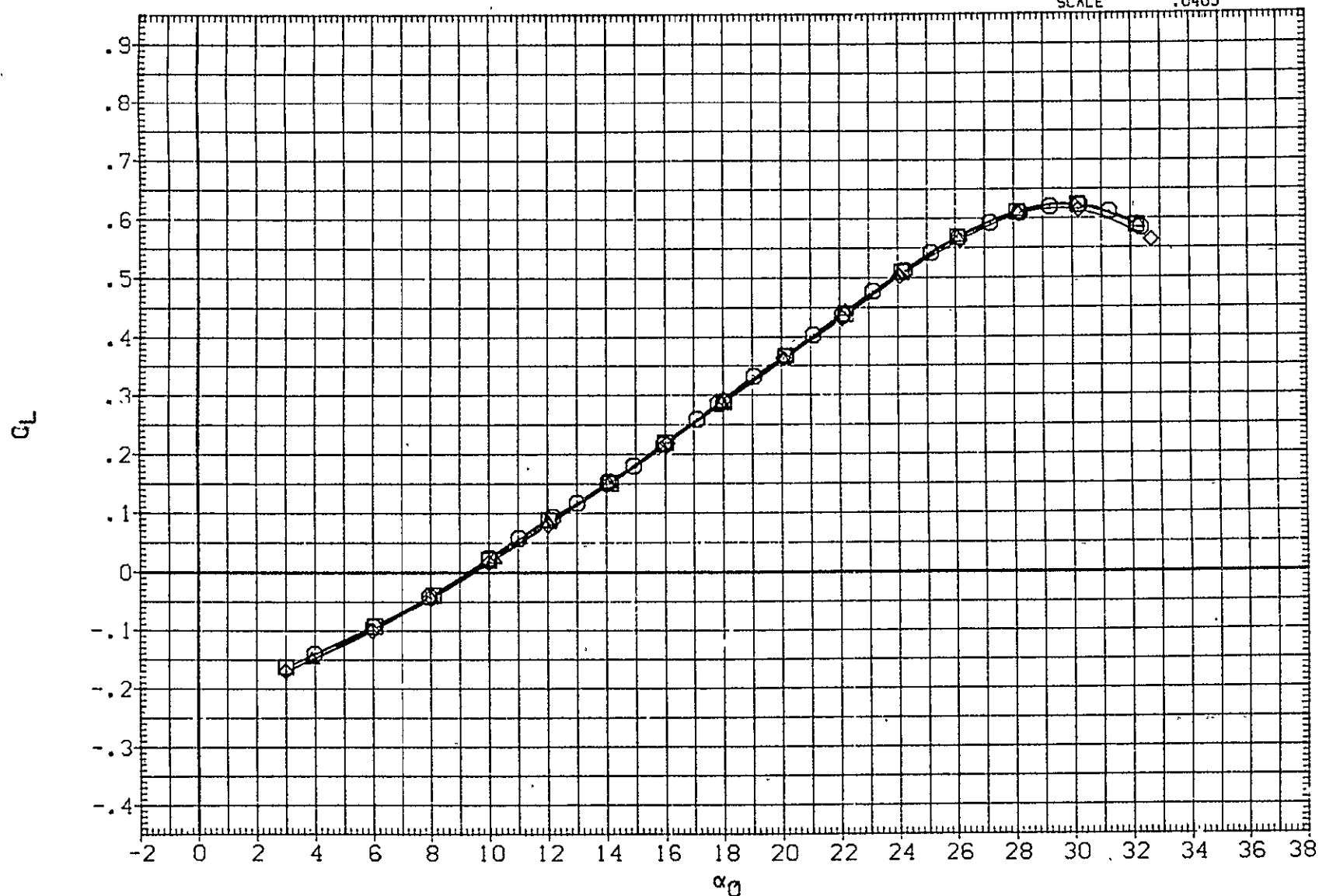


FIG 249 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 30 IORB=8, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF057) | ○      | (CA-8) K3V9.1.2TSS F30G5.3.5TS401       |        |        |         | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF059) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | .000   | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF060) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF058) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | -4.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |   |        |        |         |      | YMRP                  | .0000     | IN.Y0  |
|          |        |   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |        |        |         |      | SCALE                 | .0405     |        |

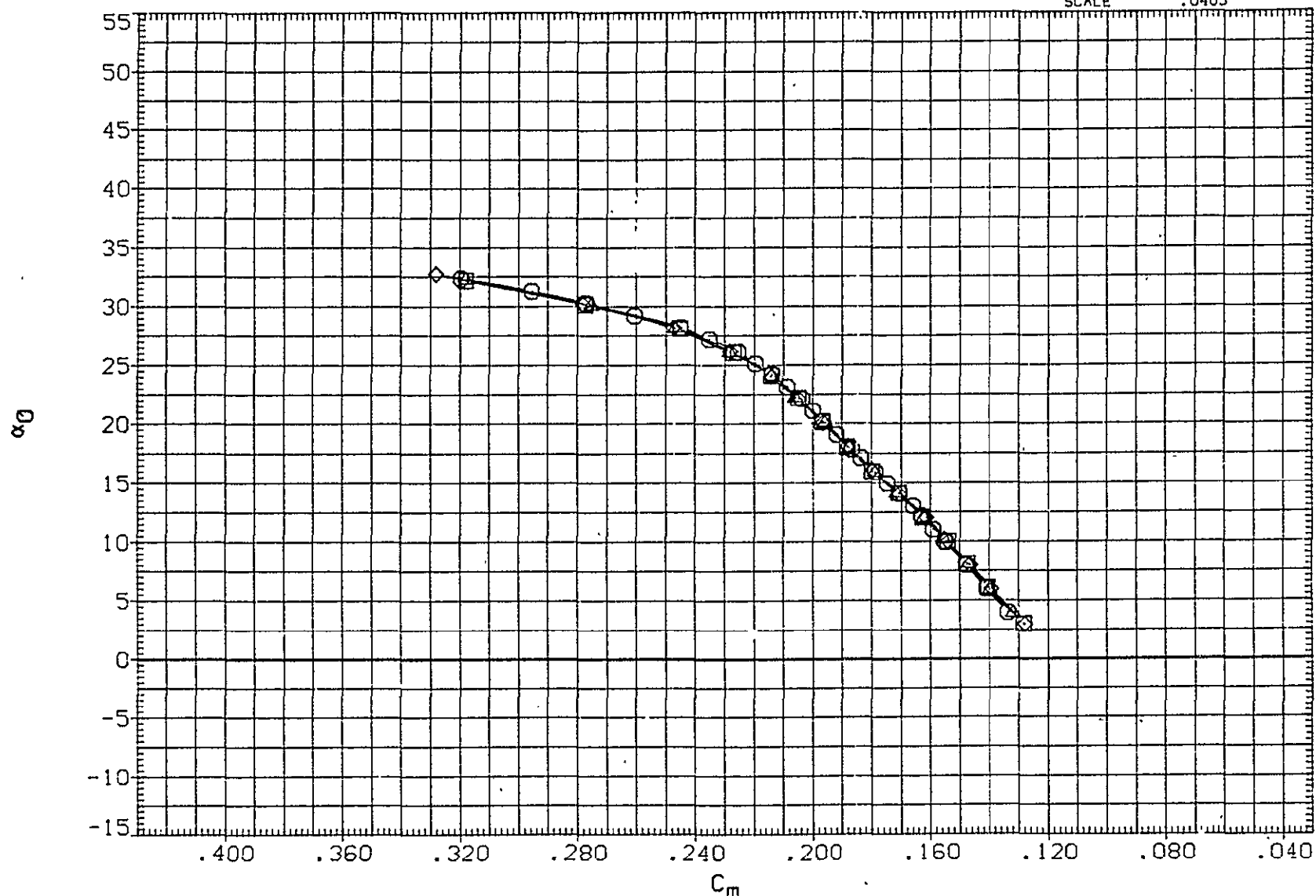


FIG 249 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 30 IORB=8, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP  | BFTA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF057) | ○      | (CA-8) K3V9.1.2TS5 F30G5.3.5TS401       |        |        |         | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF059) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | .000   | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF060) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF058) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | -4.000 | -11.700 | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |   |        |        |         |      | YMRP                  | .0000     | IN.Y0  |
|          |        |   |        |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |        |        |         |      | SCALE                 | .0405     |        |

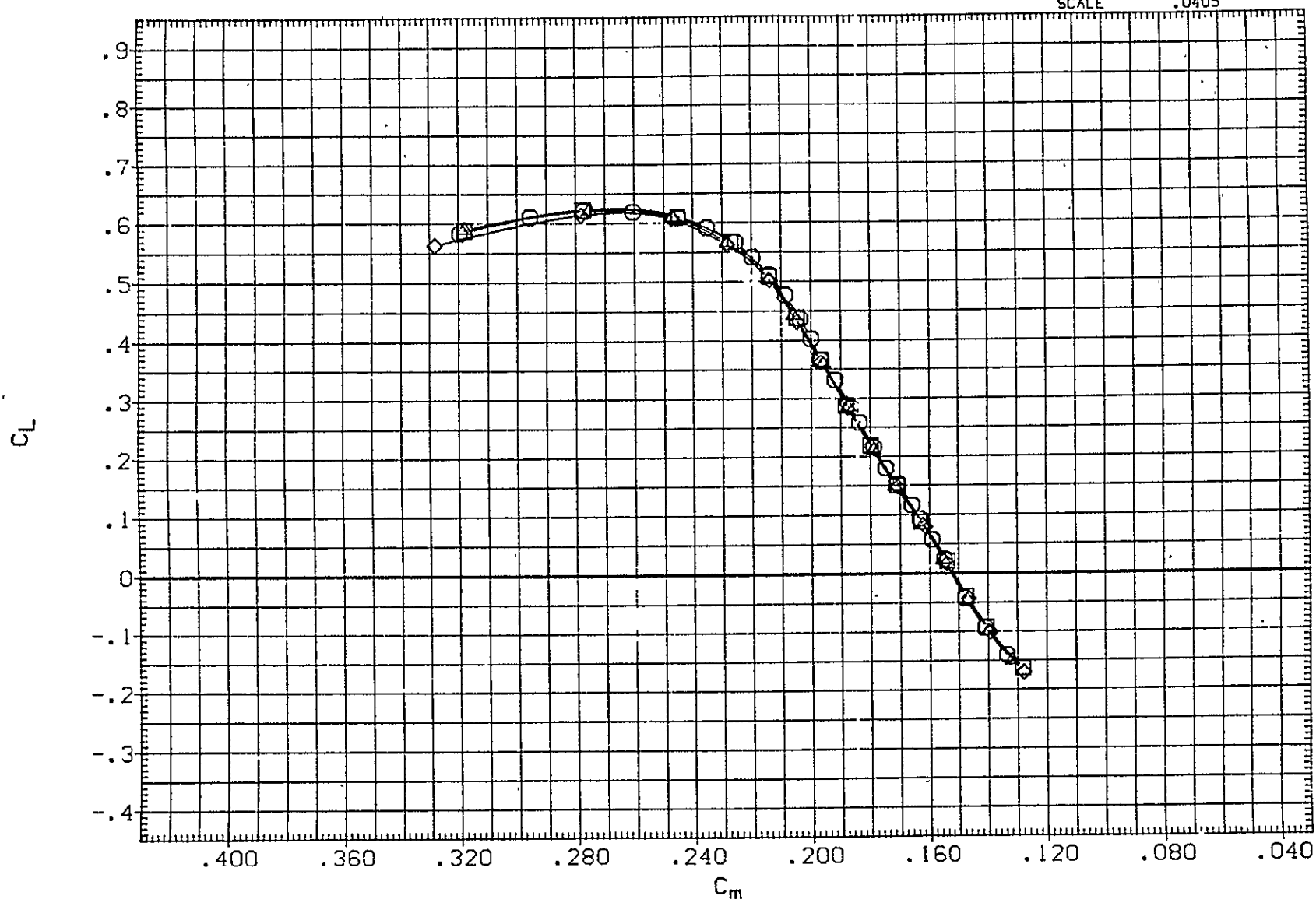


FIG 249 ALT CONFIG. STABILIZER EFFECTIVENESS. FLAPS 30 IORB=8, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

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REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|---------|------|-----------------------|-----------|--------|
| (TJF057) | ○      | (CA-8) K3V9.1.2TS5 F30G5.3.5TS401       | .000   | .000   | -11.700 | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF059) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | .000   | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF060) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
| (TJF058) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000   | -4.000 | -11.700 | .000 | XM RP                 | 1109.0000 | IN.X0  |
|          |        |   |        |        |         |      | YM RP                 | .0000     | IN.Y0  |
|          |        |   |        |        |         |      | ZM RP                 | 375.0000  | IN.Z0  |
|          |        |   |        |        |         |      | SCALE                 | .0405     |        |

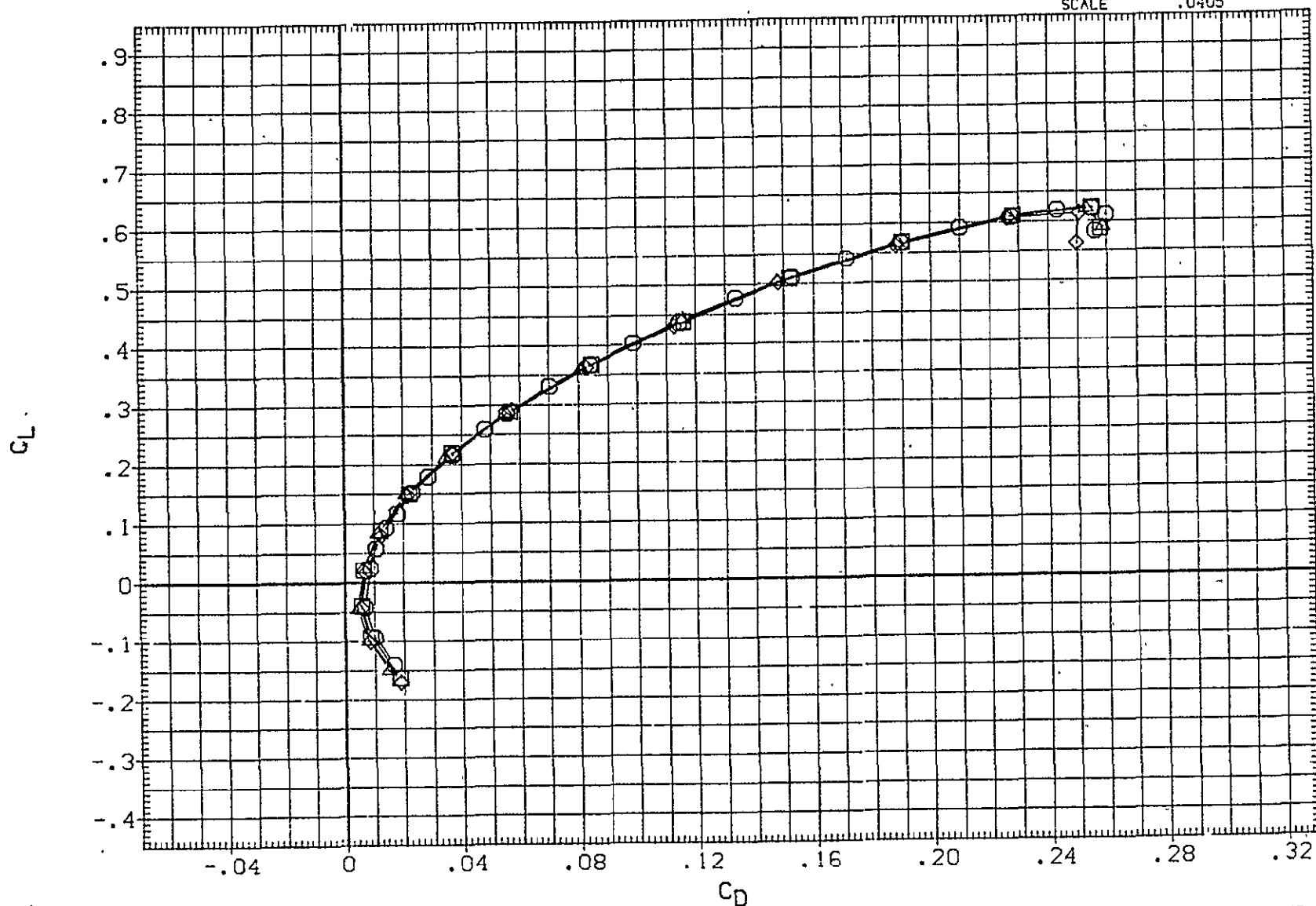


FIG 249 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 30 IORB=8, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR  | STAB   | BDFLAP  | BFTA | REFERENCE INFORMATION |                  |
|----------|--------|---|---------|--------|---------|------|-----------------------|------------------|
| (TJF061) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F3065.3.5TS401 | 17.000  | -2.000 | -11.700 | .000 | SREF                  | 2690.0000 SQ.FT. |
| (TJF060) | □      | (CA-8) K3V9.1.2TS5H15.6.1F3065.3.5TS401 | .000    | -2.000 | -11.700 | .000 | LREF                  | 474.8100 IN.     |
| (TJF062) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F3065.3.5TS401 | -23.000 | -2.000 | -11.700 | .000 | BREF                  | 936.6800 IN.     |
|          |        |   |         |        |         |      | XMRP                  | 1109.0000 IN.X0  |
|          |        |   |         |        |         |      | YMRP                  | .0000 IN.Y0      |
|          |        |   |         |        |         |      | ZMRP                  | 375.0000 IN.Z0   |
|          |        |   |         |        |         |      | SCALE                 | .0405            |

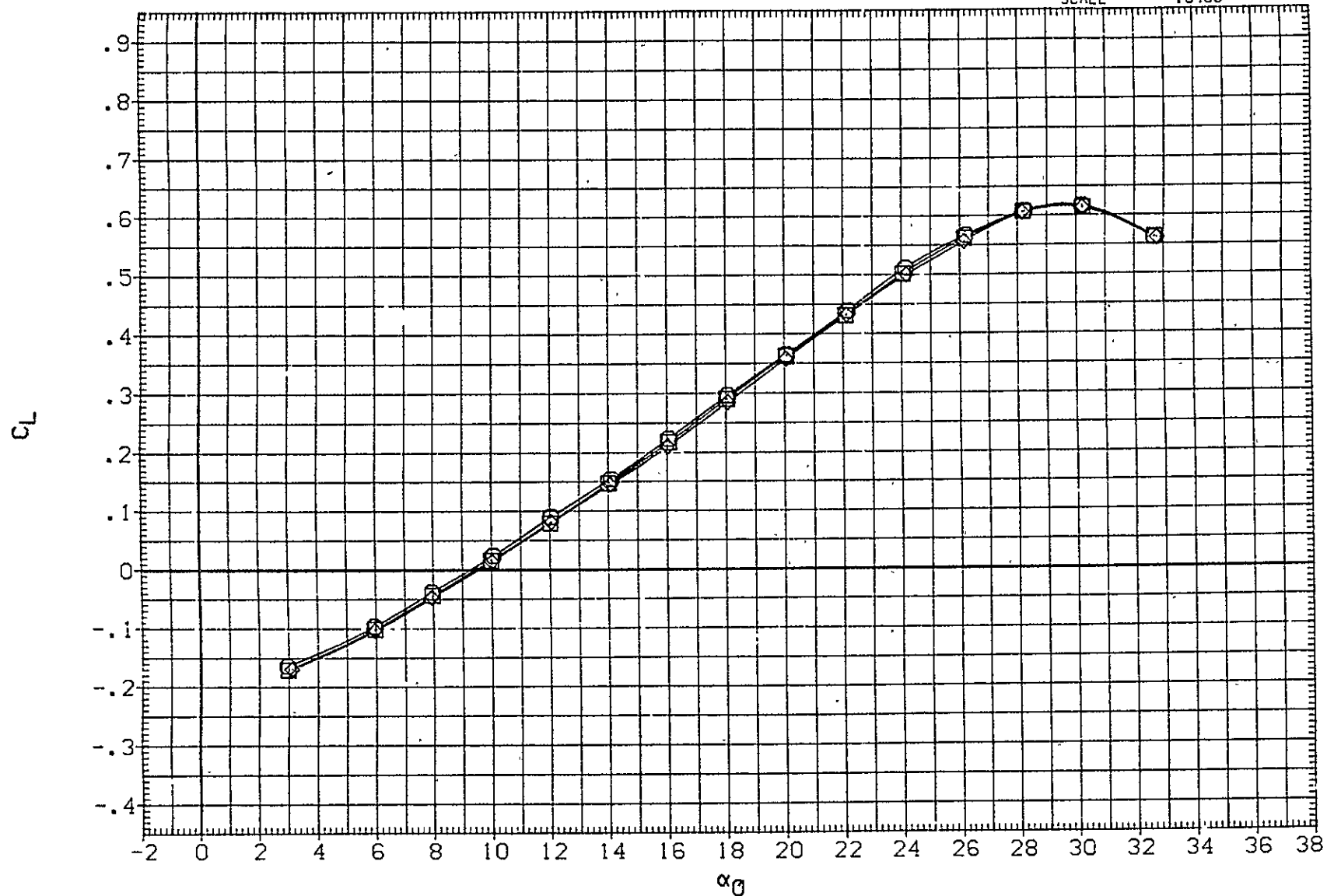


FIG 250 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 30 IORB=8, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR  | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |                  |
|----------|--------|---|---------|--------|---------|------|-----------------------|------------------|
| (TJFC61) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | 17.000  | -2.000 | -11.700 | .000 | SREF                  | 2690.0000 SQ.FT. |
| (TJFC60) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000    | -2.000 | -11.700 | .000 | LREF                  | 474.8100 IN.     |
| (TJFC62) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | -23.000 | -2.000 | -11.700 | .000 | BREF                  | 936.6800 IN.     |
|          |        |   |         |        |         |      | XMPP                  | 1109.0000 IN. X0 |
|          |        |   |         |        |         |      | YMRP                  | .0000 IN. Y0     |
|          |        |   |         |        |         |      | ZMRP                  | 375.0000 IN. Z0  |
|          |        |   |         |        |         |      | SCALE                 | .0405            |

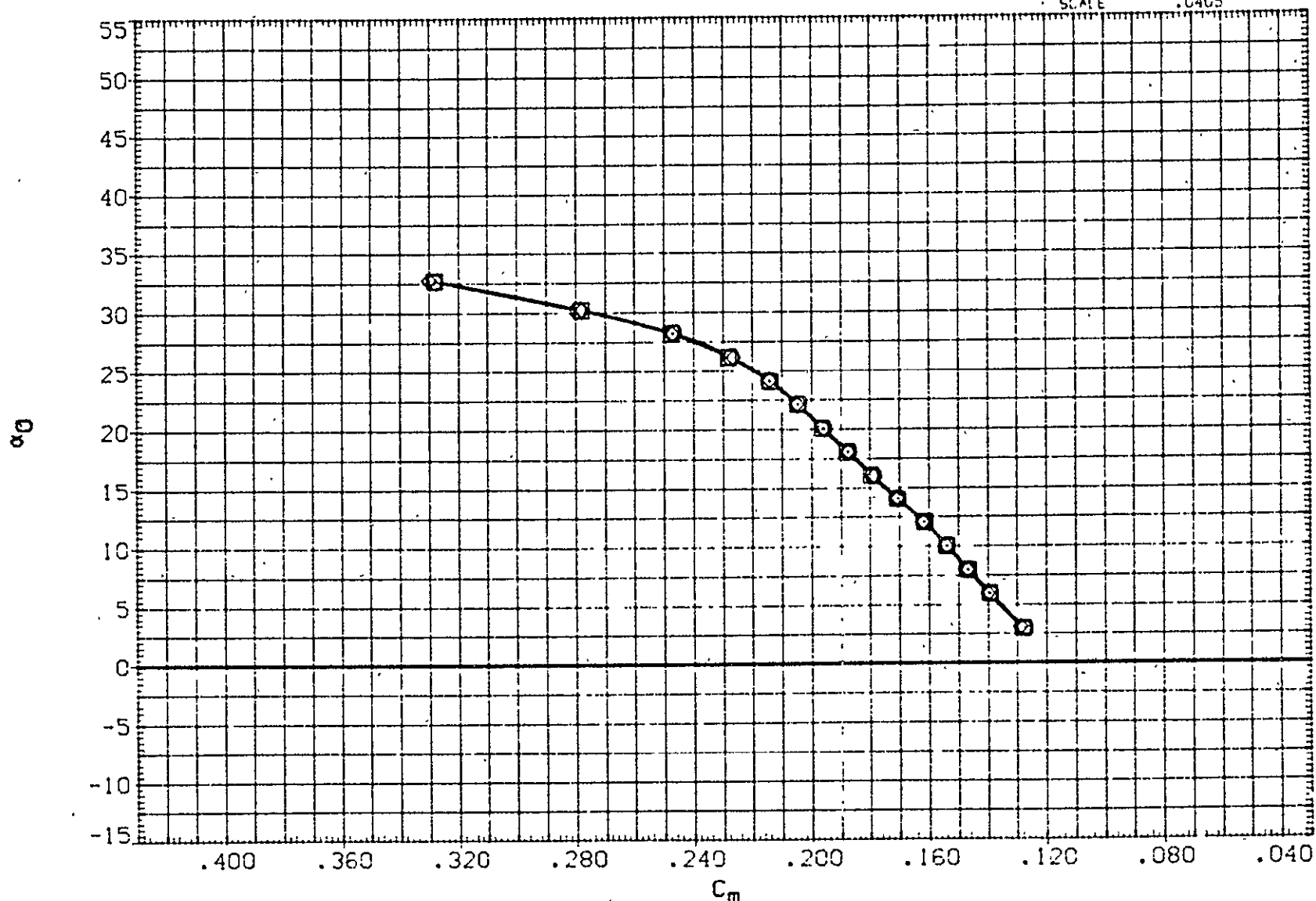


FIG 250 ALT CONFIG. ELEVATOR EFFECTIVENESS. FLAPS 30 IORB=8. TC ON. ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR  | STAB   | BDFLAP  | BFTA | REFERENCE INFORMATION |                  |
|----------|--------|---|---------|--------|---------|------|-----------------------|------------------|
| (TJF061) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | 17.000  | -2.000 | -11.700 | .000 | SPEF                  | 2690.0000 SQ.FT. |
| (TJF060) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000    | -2.000 | -11.700 | .000 | LPEF                  | 474.8100 IN.     |
| (TJF062) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | -23.000 | -2.000 | -11.700 | .000 | BREF                  | 936.6800 IN.     |
|          |        |   |         |        |         |      | XMRP                  | 1109.0000 IN.X0  |
|          |        |   |         |        |         |      | YMRP                  | .0000 IN.Y0      |
|          |        |   |         |        |         |      | ZMRP                  | 375.0000 IN.Z0   |
|          |        |   |         |        |         |      | SCALE                 | .0405            |



FIG 250 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 30 IORB=8. TC ON. ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR  | STAB   | BDFLAP  | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|---------|--------|---------|------|-----------------------|-----------|--------|
| (TJFC61) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | 17.000  | -2.000 | -11.700 | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF060) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | .000    | -2.000 | -11.700 | .000 | LREF                  | 474.8100  | IN.    |
| (TJF062) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401 | -23.000 | -2.000 | -11.700 | .000 | BREF                  | 936.6800  | IN.    |
|          |        |   |         |        |         |      | XMRP                  | 1109.0000 | IN.X0  |
|          |        |   |         |        |         |      | YMRP                  | .0000     | IN.Y0  |
|          |        |   |         |        |         |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |         |        |         |      | SCALE                 | .0405     |        |

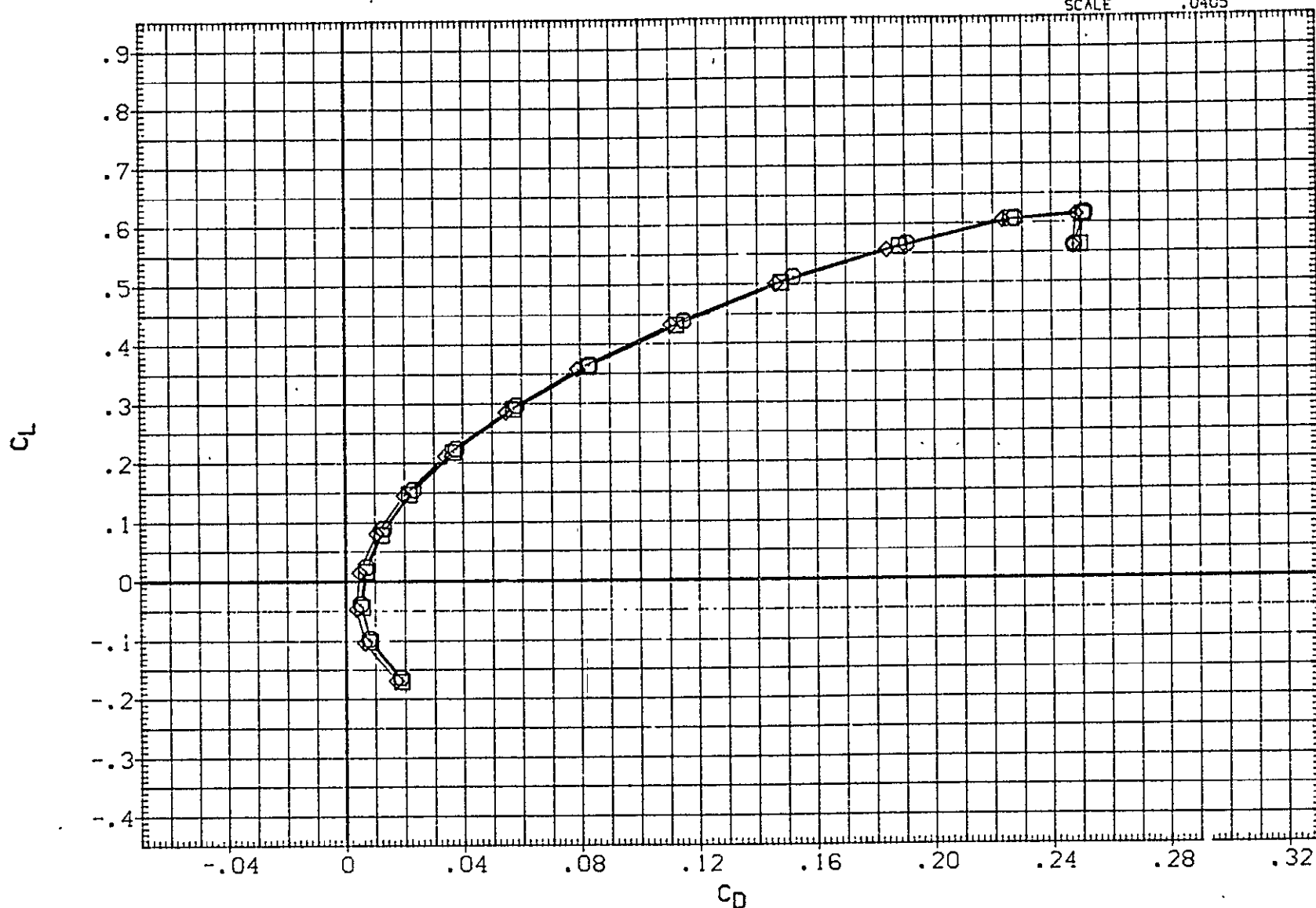


FIG 250 ALT CONFIG. ELEVATOR EFFECTIVENESS, FLAPS 30 IORB=8, TC ON, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF114) | ○      | (CA-8) K3V9.1.2TS5 F10TS402       |        |        |        |      | SREF                  | 2690.0000 | 50.FT. |
| (TJF113) | □      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 | .000   | 2.000  | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF111) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 | .000   | .000   | .000   | .000 | BREF                  | 936.6800  | IN.    |
| (TJF112) | △      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 | .000   | -2.000 | .000   | .000 | XMPP                  | 1109.0000 | IN. X0 |
|          |        |                                   |        |        |        |      | YMPP                  | .0000     | IN. Y0 |
|          |        |                                   |        |        |        |      | ZMPP                  | 375.0000  | IN. Z0 |
|          |        |                                   |        |        |        |      | SCALE                 | .0405     |        |

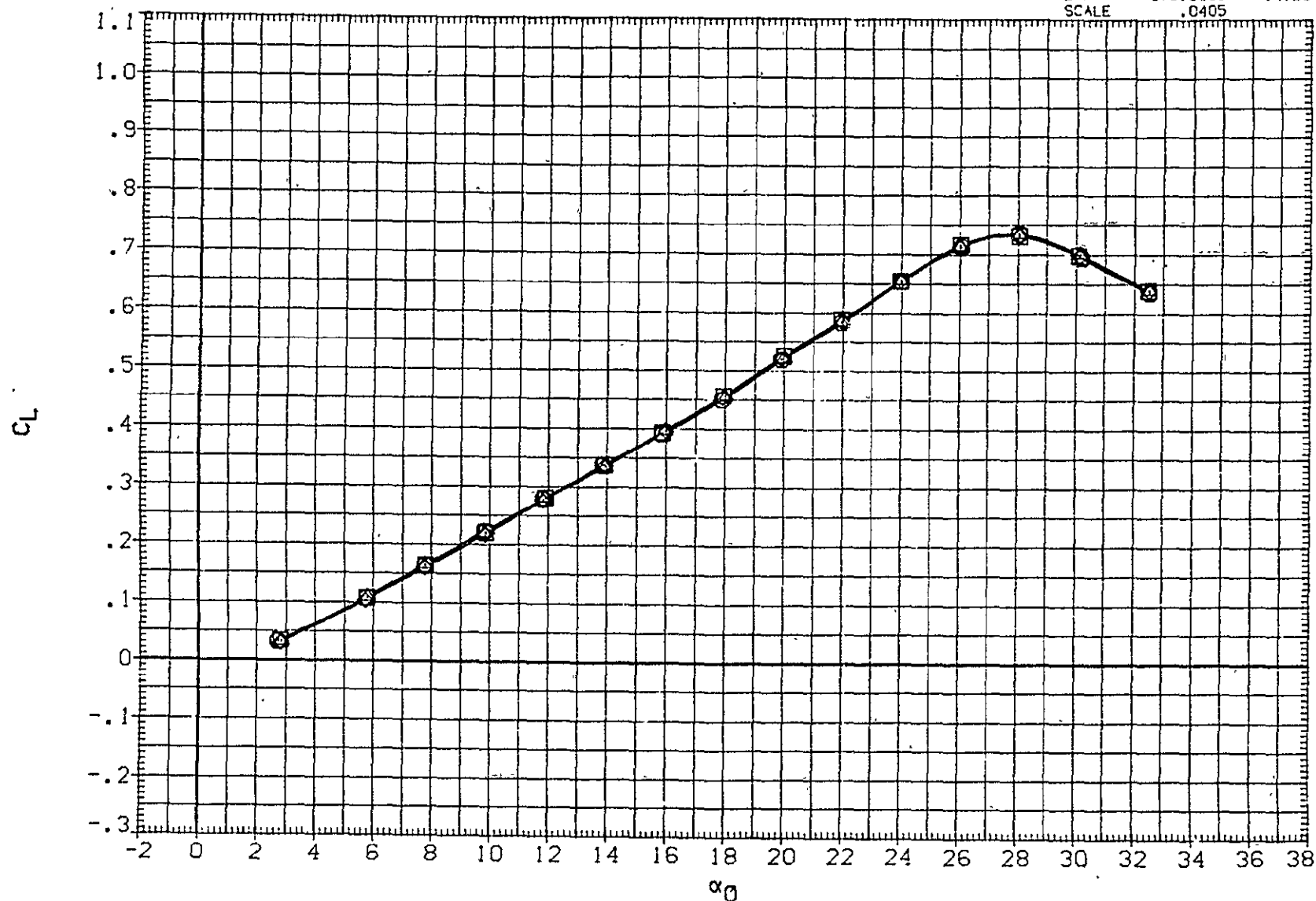


FIG 251 ALT CONFIG. STABILIZER EFFECTIVENESS. FLAPS 10 IORB=8, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP | BFTA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF114) | ○      | (CA-8) K3V9.1.2T55 F10TS402       |        |        | .000   | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF113) | □      | (CA-8) K3V9.1.2T55H15.6.1F10TS402 | .000   | 2.000  | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF111) | ◇      | (CA-8) K3V9.1.2T55H15.6.1F10TS402 | .000   | .000   | .000   | .000 | BREF                  | 936.6800  | IN.    |
| (TJF112) | △      | (CA-8) K3V9.1.2T55H15.6.1F10TS402 | .000   | -2.000 | .000   | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |                                   |        |        |        |      | YMRP                  | .0000     | IN.Y0  |
|          |        |                                   |        |        |        |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                   |        |        |        |      | SCALE                 | .0405     |        |

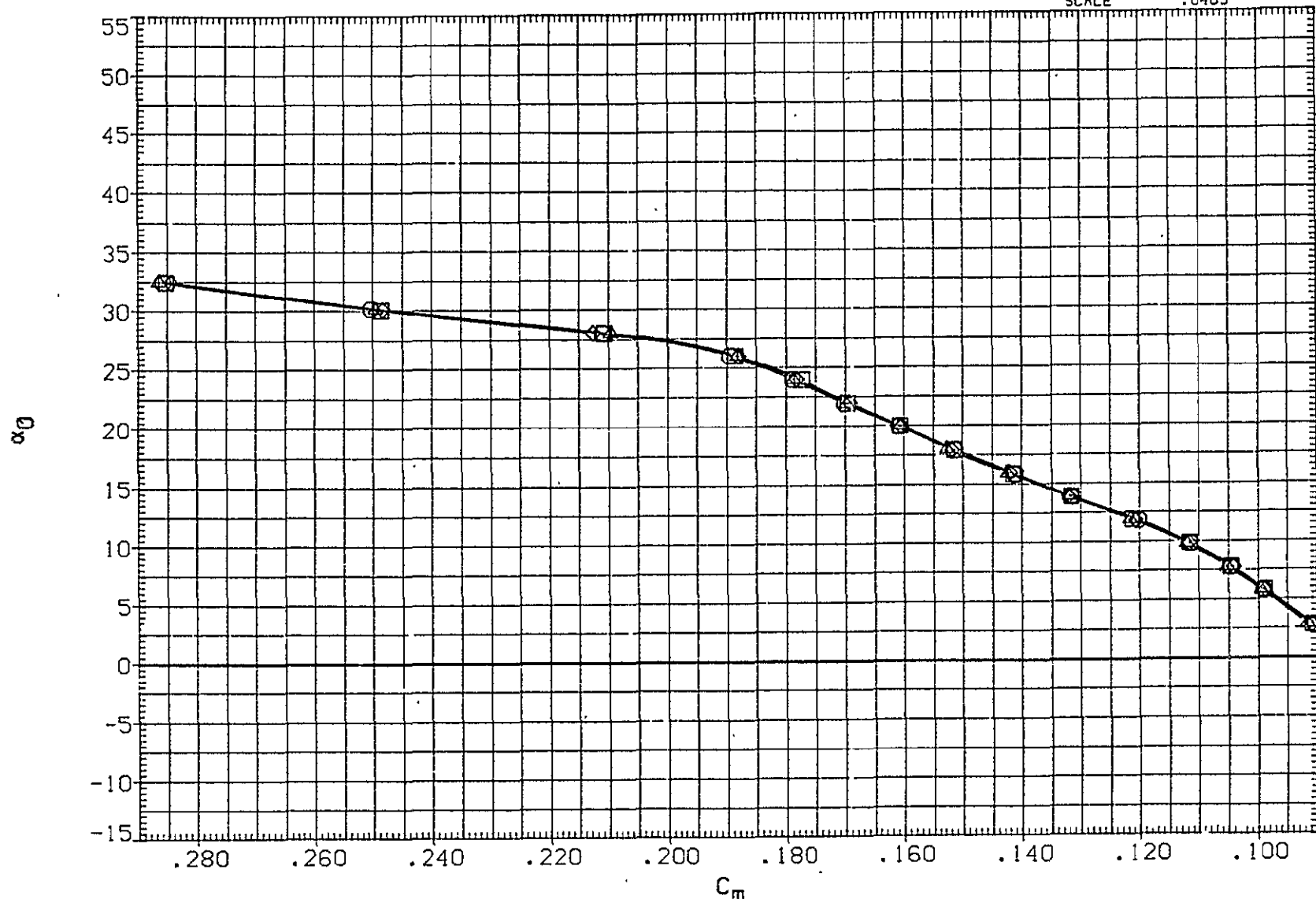


FIG 251 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 10 IORB=8, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION          | ELEVTR | STAB   | BOFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|------------------------------------|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF114) | ○      | (CA-8) K3V9.1.2TS5 F10TS402        |        |        | .000   | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF113) | □      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402  | .000   | 2.000  | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF111) | ◇      | (CA-8) K3V.1.1.2TS5H15.6.1F10TS402 | .000   | .000   | .000   | .000 | BREF                  | 936.6800  | IN.    |
| (TJF112) | △      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402  | .000   | -2.000 | .000   | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |                                    |        |        |        |      | YMRP                  | .0000     | IN.Y0  |
|          |        |                                    |        |        |        |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                    |        |        |        |      | SCALE                 | .0405     |        |

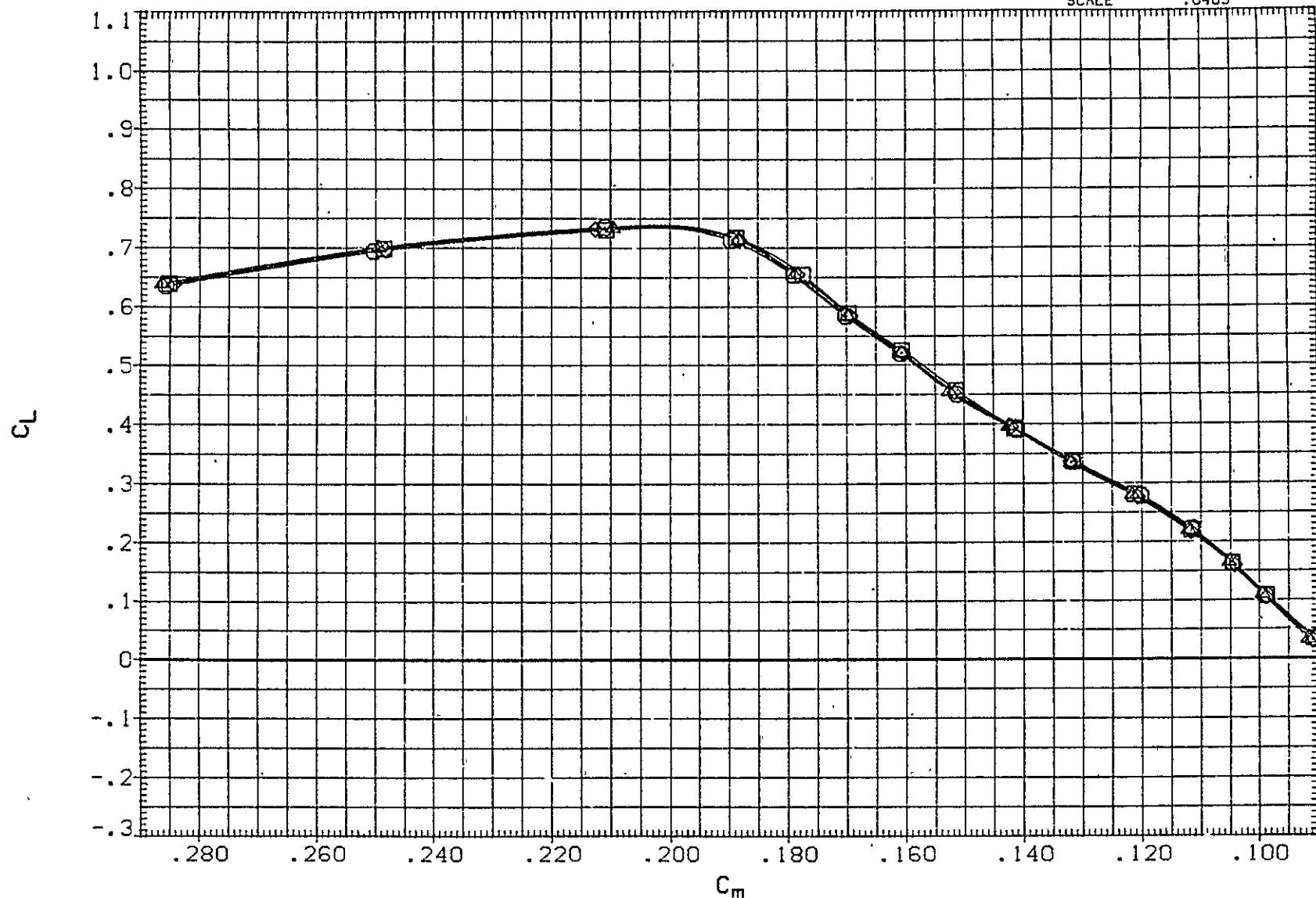


FIG 251 ALT CONFIG. STABILIZER EFFECTIVENESS. FLAPS 10 · IORB=8, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION         | ELEVTR | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|-----------------------------------|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF114) | □      | (CA-8) K3V9.1.2TS5 F10TS402       |        |        | .000   | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF113) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 | .000   | 2.000  | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF111) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 | .000   | .000   | .000   | .000 | BREF                  | 936.6800  | IN.    |
| (TJF112) | △      | (CA-8) K3V9.1.2TS5H15.6.1F10TS402 | .000   | -2.000 | .000   | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |                                   |        |        |        |      | YMRP                  | .0000     | IN.Y0  |
|          |        |                                   |        |        |        |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                   |        |        |        |      | SCALE                 | .0405     |        |

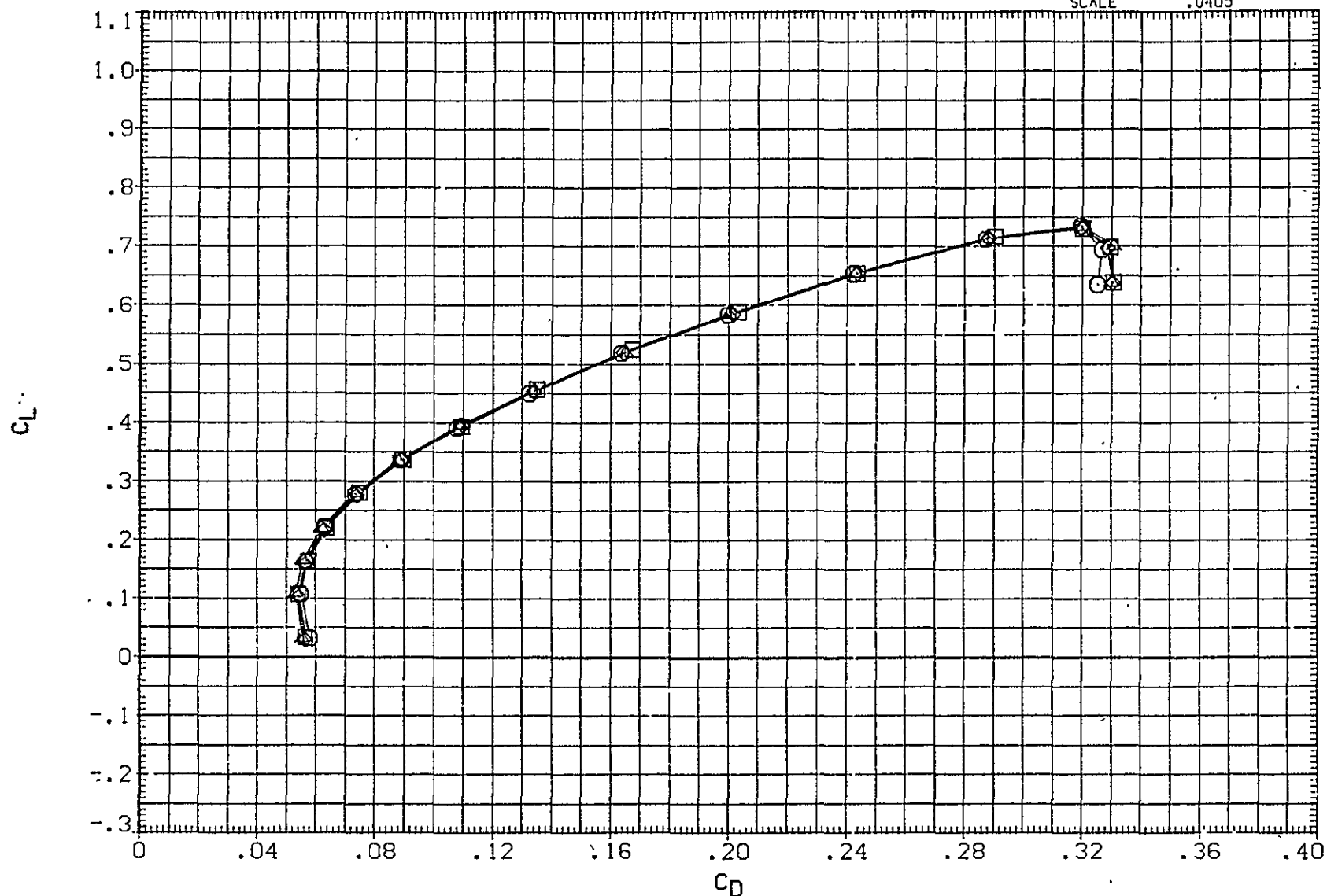


FIG 251 ALT CONFIG. STABILIZER EFFECTIVENESS. FLAPS 10 IORB=8.TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP | BFTA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF073) | ○      | (CA-8) K3V9.1.2TS5 F30G5.3.5TS402       |        |        | .000   | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF076) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000   | .000   | .000   | .000 | LRFF                  | 474.8100  | IN.    |
| (TJF075) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000   | -2.000 | .000   | .000 | BRFF                  | 936.6800  | IN.    |
| (TJF074) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000   | -4.000 | .000   | .000 | AMRP                  | 1109.0000 | IN.X0  |
|          |        |   |        |        |        |      | YMRP                  | .0000     | IN.Y0  |
|          |        |   |        |        |        |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |        |        |        |      | SCALE                 | .0405     |        |

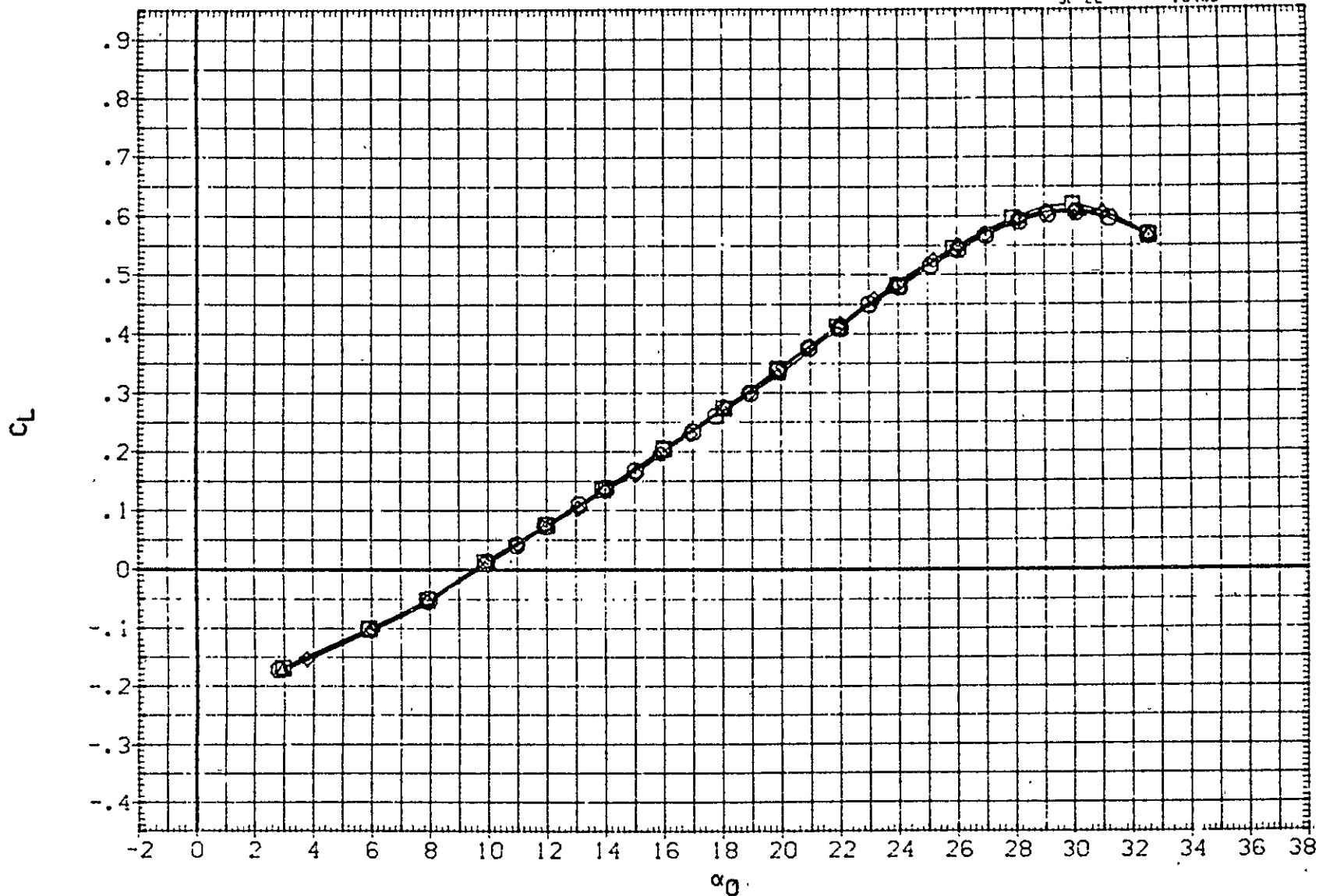


FIG 252 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 30 IORB=8.TC OFF. ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BOFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF073) | ○      | (CA-8) K3V9.1.2TS5 F30G5.3.5TS402       |        |        | .000   | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF076) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000   | .000   | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF075) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000   | -2.000 | .000   | .000 | BPEF                  | 936.6900  | IN.    |
| (TJF074) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000   | -4.000 | .000   | .000 | XMRP                  | 1109.0000 | IN.YO  |
|          |        |   |        |        |        |      | YMRP                  | .0000     | IN.YO  |
|          |        |   |        |        |        |      | ZMRP                  | 375.0000  | IN.ZO  |
|          |        |   |        |        |        |      | SCALE                 | .6405     |        |

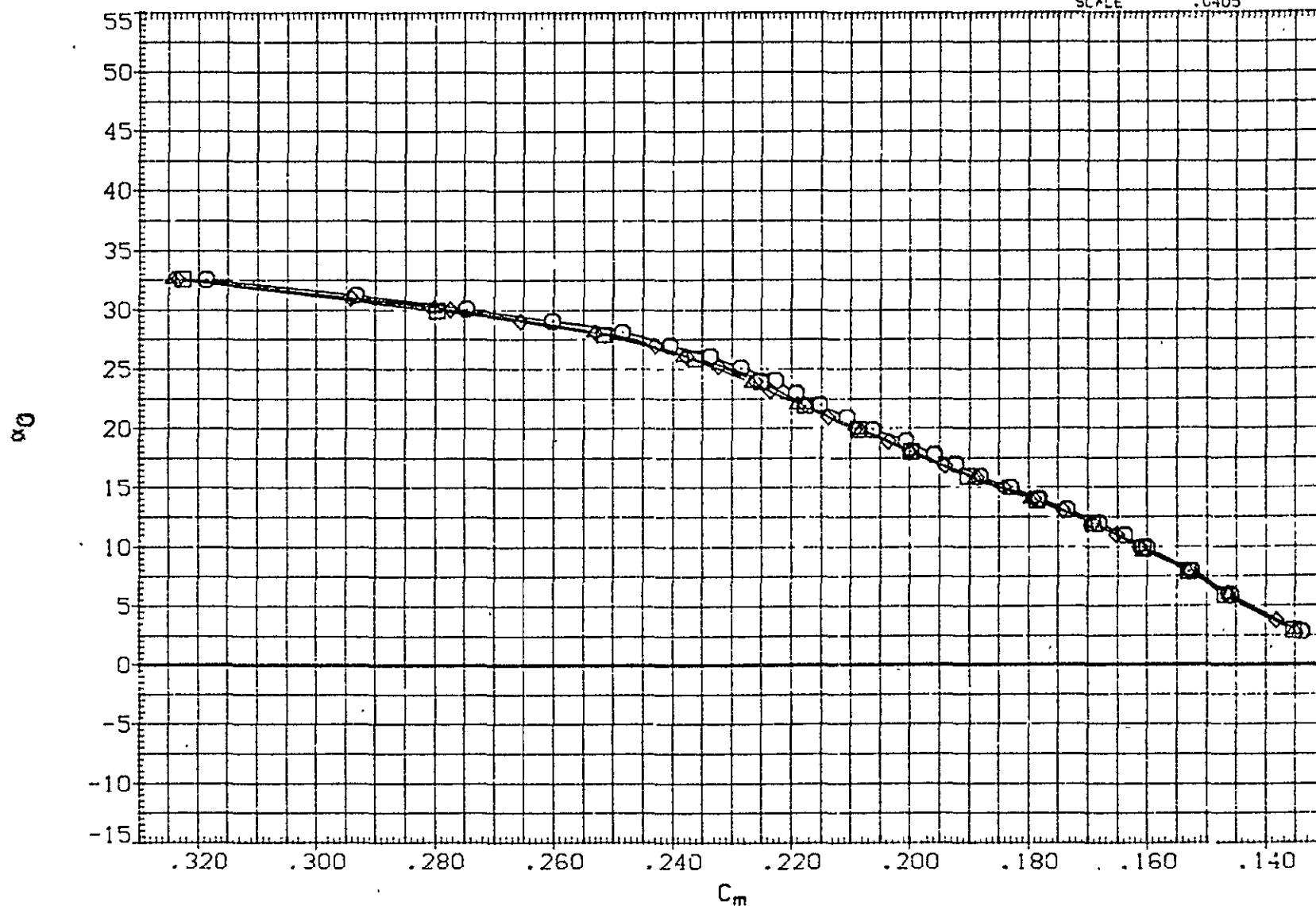


FIG 252 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 30 IORB=8, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP | BFTA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF073) | ○      | (CA-8) K3V9.1.2TS5 F30G5.3.5TS402       |        |        | .000   | .000 | SREF                  | 2690.0000 | SQ.FT. |
| (TJF076) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000   | .000   | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF075) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000   | -2.000 | .000   | .000 | BPEF                  | 936.6800  | IN.    |
| (TJF074) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000   | -4.000 | .000   | .000 | XMRP                  | 1109.0000 | IN. X0 |
|          |        |   |        |        |        |      | YMRP                  | .0000     | IN. Y0 |
|          |        |   |        |        |        |      | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |   |        |        |        |      | SCALE                 | .0405     |        |

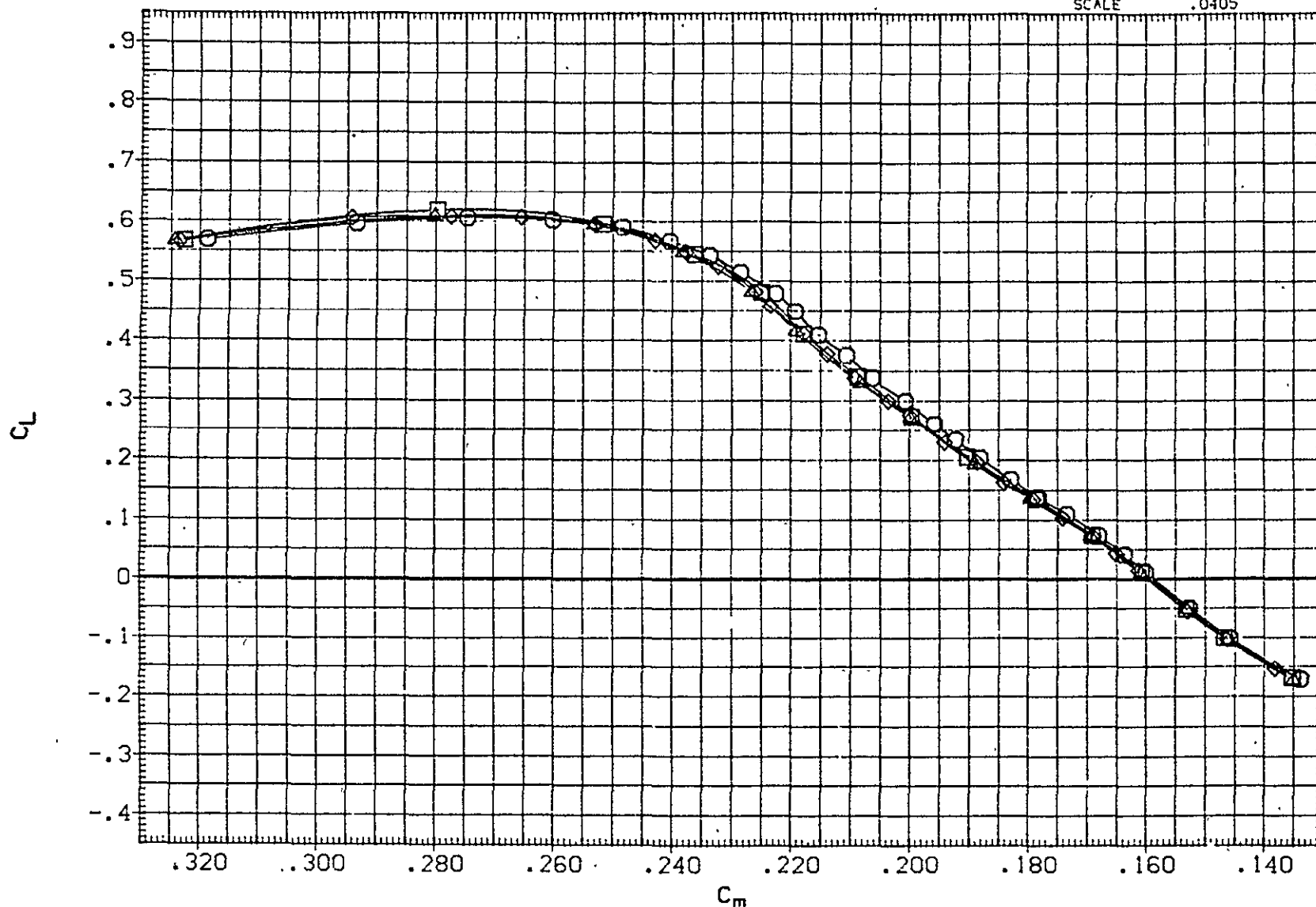


FIG 252 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 30 IORB=8, TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION               | ELEVTR | STAB   | BDFLAP | BETA | REFERENCE INFORMATION |           |        |
|----------|--------|---|--------|--------|--------|------|-----------------------|-----------|--------|
| (TJF073) | □      | (CA-8) K3V9.1.2TS5 F30G5.3.5TS402       |        |        | .000   | .000 | SREF                  | 2690.0000 | 50.FT. |
| (TJF076) | □      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000   | .000   | .000   | .000 | LREF                  | 474.8100  | IN.    |
| (TJF075) | ◇      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000   | -2.000 | .000   | .000 | BREF                  | 936.6800  | IN.    |
| (TJF074) | △      | (CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402 | .000   | -4.000 | .000   | .000 | XMRP                  | 1109.0000 | IN.X0  |
|          |        |   |        |        |        |      | YMPP                  | .0000     | IN.Y0  |
|          |        |   |        |        |        |      | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |   |        |        |        |      | SCALE                 | .0405     |        |

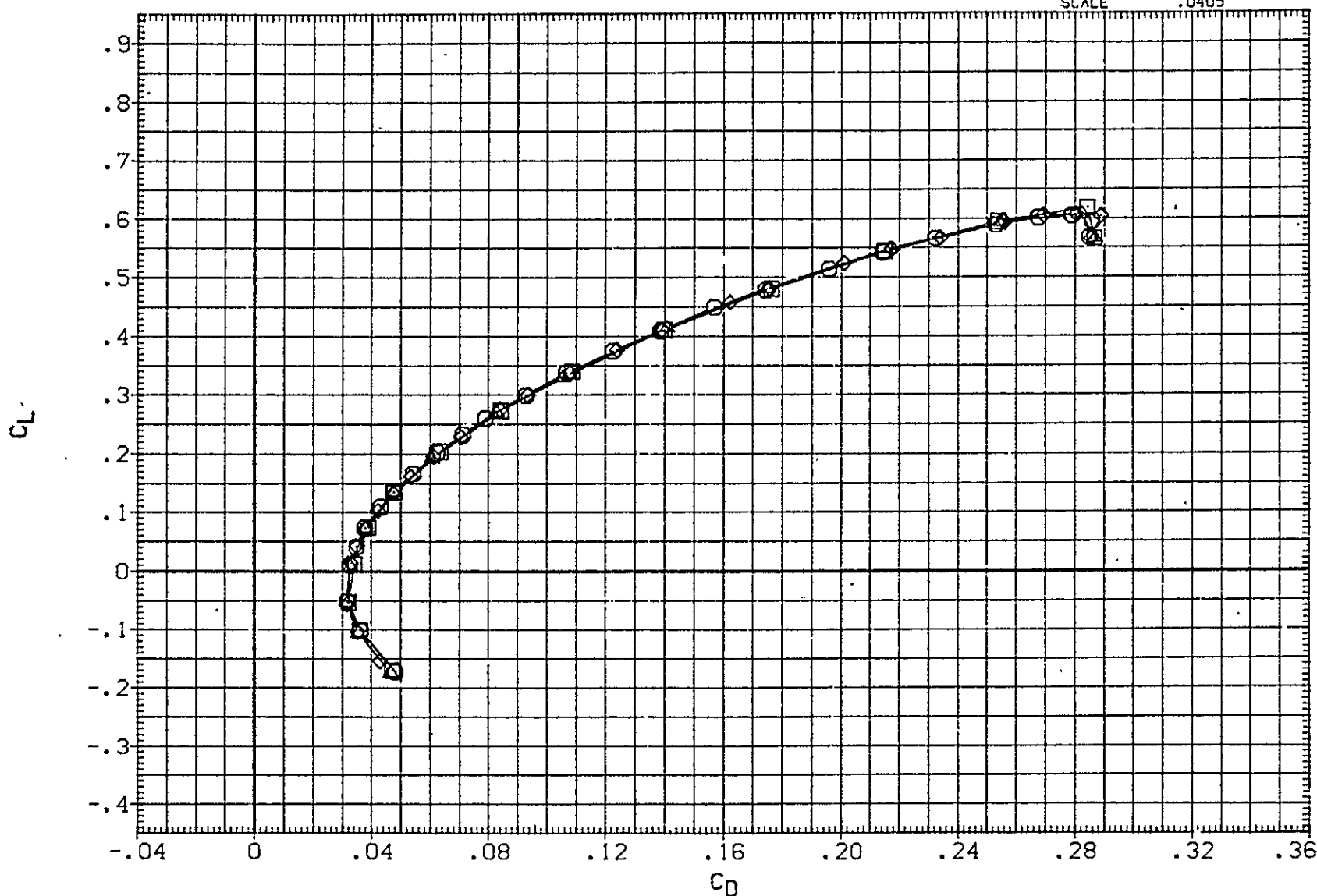


FIG 252 ALT CONFIG. STABILIZER EFFECTIVENESS, FLAPS 30 IORB=8.TC OFF, ELEV=-5  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION          |
|----------|--------|------------------------------------|
| (TJF083) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401  |
| (TJF079) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402 |

| ELEVTP | STAB   | IORB  | ELEVON |
|--------|--------|-------|--------|
| .000   | -2.000 | 6.000 | -5.000 |
| .000   | -2.000 | 6.000 | -5.000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | SQ.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN.X0  |
| YMRP                  | .0000     | IN.Y0  |
| ZMRP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

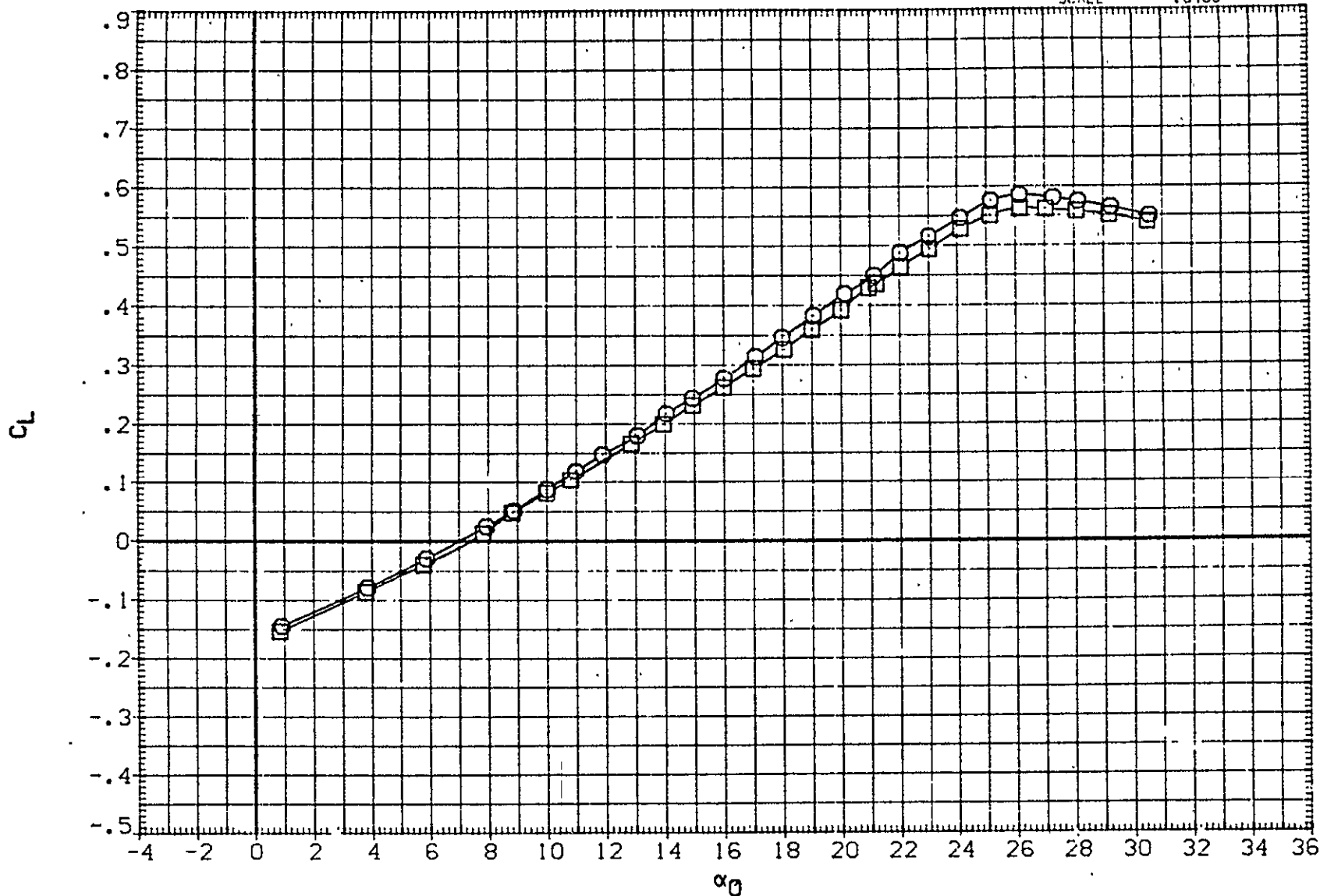


FIG 253 EFFECT OF TAILCONE, ALT CONF. IORB = 6. FLAPS 20  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION          |
|----------|--------|------------------------------------|
| (TJF083) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401  |
| (TJF079) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402 |

| ELEVTR | STAB   | IORB  | ELEVON |
|--------|--------|-------|--------|
| .000   | -2.000 | 6.000 | -5.000 |
| .000   | -2.000 | 6.000 | -5.000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | SQ.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN.X0  |
| YMRP                  | .0000     | IN.Y0  |
| ZMRP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

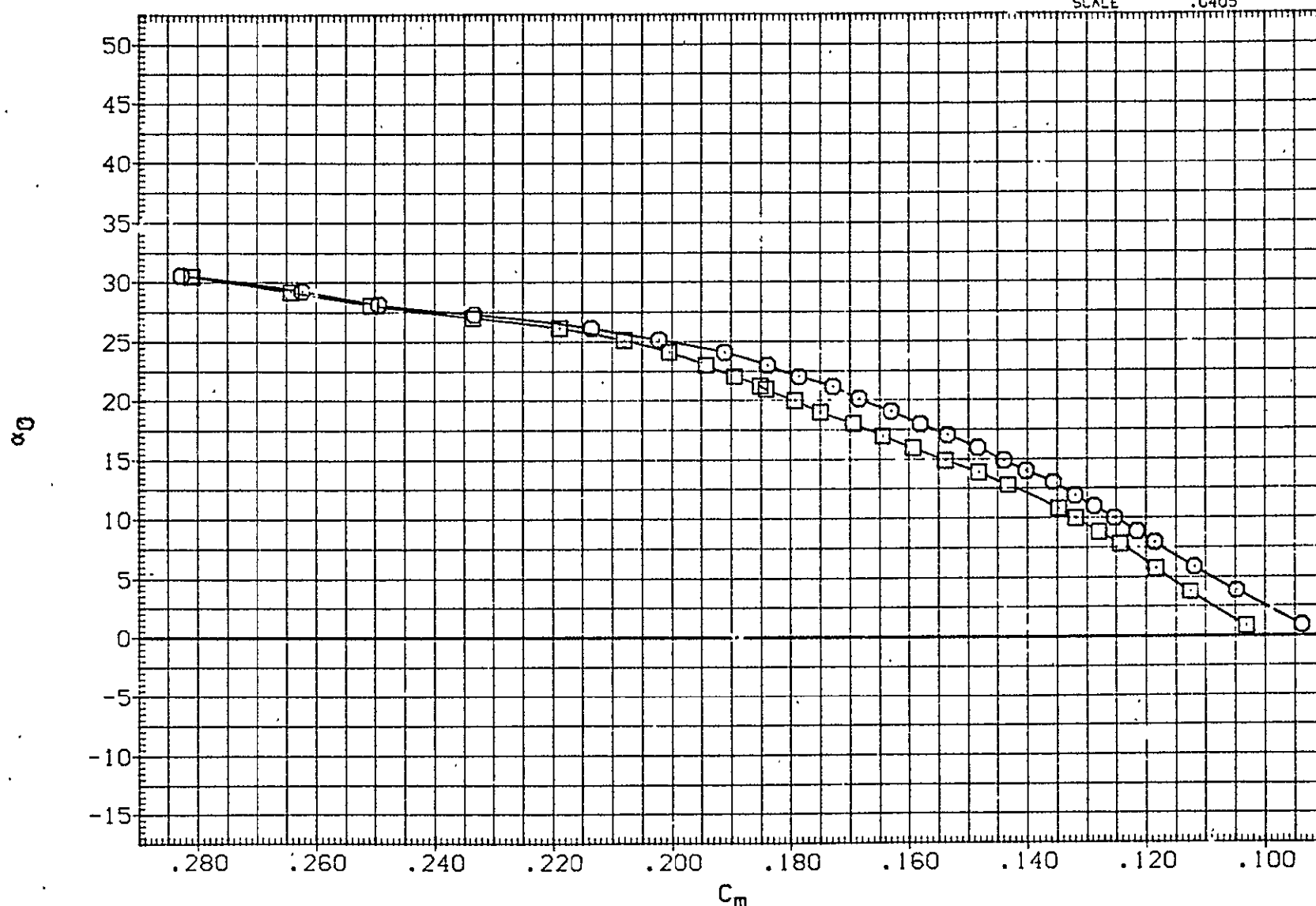


FIG 253 EFFECT OF TAILCONE, ALT CONF. IORB = 6. FLAPS 20  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION          |
|----------|--------|------------------------------------|
| (TJF083) | ○      | (CA-8) K3V9.1.2TS5H15.6.1F20TS401  |
| (TJF079) | □      | (CA-8) K3V9.1.2TS5H15.6.1F20 TS402 |

| ELEVTR | STAB   | IORB  | L'EYON |
|--------|--------|-------|--------|
| .000   | -2.000 | 6.000 | -5.000 |
| .000   | -2.000 | 6.000 | -5.000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | SQ.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN.X0  |
| YMRP                  | .0000     | IN.Y0  |
| ZMRP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

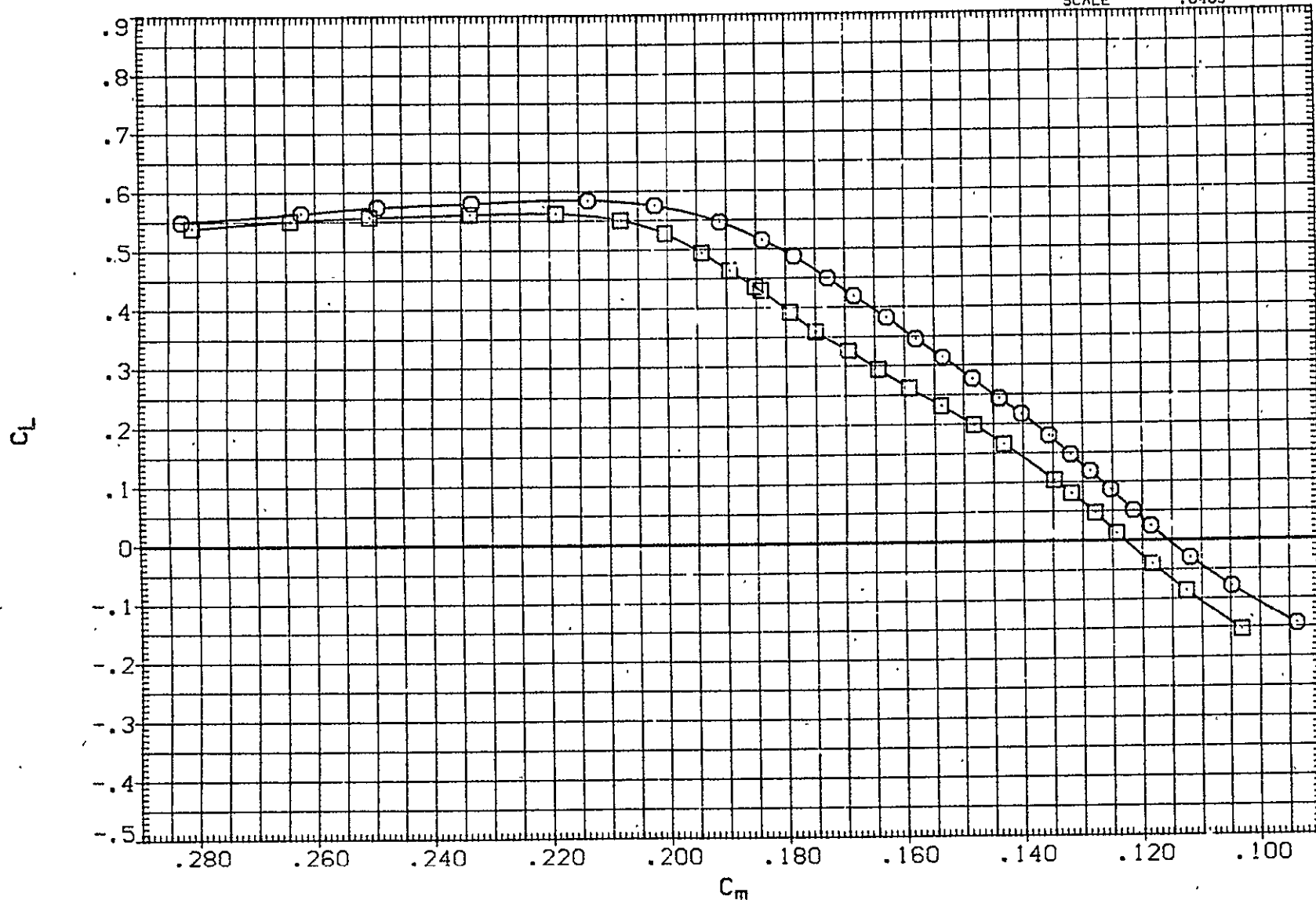


FIG 253 EFFECT OF TAILCONE, ALT CONF. IORB = 6, FLAPS 20  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION          |
|----------|--------|------------------------------------|
| (TJF093) | ○      | (CA-8) K3V9.1.2TSSH15.6.1F20TS401  |
| (TJF079) | □      | (CA-8) K3V9.1.2TSSH15.6.1F20 TS402 |

| ELEVTR | STAB   | IORB  | ELEVON |
|--------|--------|-------|--------|
| .000   | -2.000 | 6.000 | -5.000 |
| .000   | -2.000 | 6.000 | -5.000 |

| REFERENCE INFORMATION |           |        |
|-----------------------|-----------|--------|
| SREF                  | 2690.0000 | SO.FT. |
| LREF                  | 474.8100  | IN.    |
| BREF                  | 936.6800  | IN.    |
| XMRP                  | 1109.0000 | IN.X0  |
| YMRP                  | .0000     | IN.Y0  |
| ZMRP                  | 375.0000  | IN.Z0  |
| SCALE                 | .0405     |        |

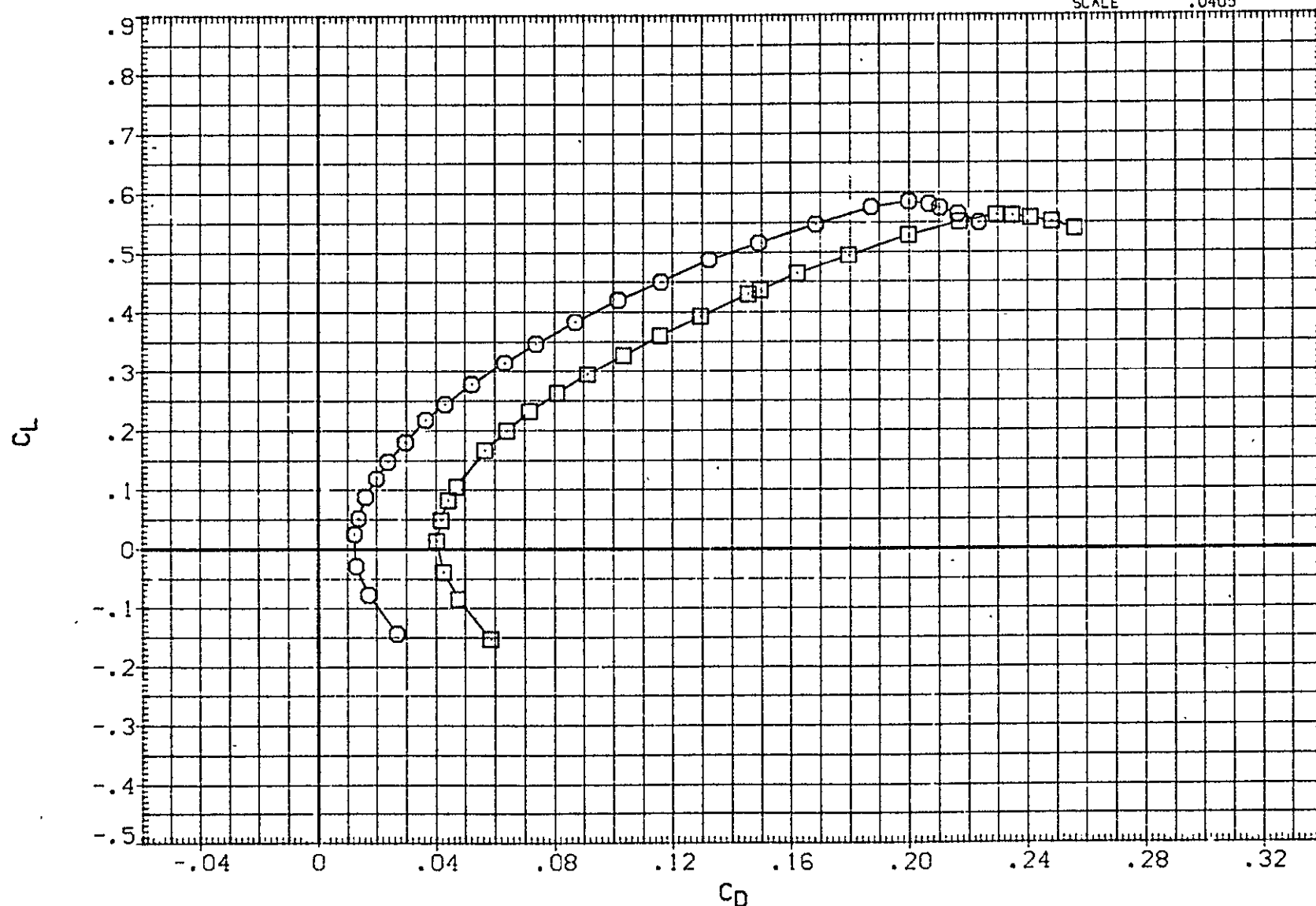


FIG 253 EFFECT OF TAILCONE, ALT CONF, IORB = 6, FLAPS 20  
ORBITER BALANCE DATA-ALPHA SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA W | IORB  | BOFLAP  | EI EVGN | REFERENCE INFORMATION |
|----------|--------|-------------------------------|---------|-------|---------|---------|-----------------------|
| (TJF157) | ○      | (CA-8) K2.1TS7 F30TS401G5.3.5 | .235    | 3.000 | -11.700 | .000    | SREF 2690.0000 SQ.FT  |
| (TJF158) | ◇      | (CA-8) K2.1TS7 F30TS401G5.3.5 | 4.200   | 3.000 | -11.700 | .000    | LREF 474.8100 IN.     |
| (TJF159) | ◇      | (CA-8) K2.1TS7 F30TS401G5.3.5 | 6.165   | 3.000 | -11.700 | .000    | BREF 936.6800 IN.     |
| (TJF160) | △      | (CA-8) K2.1TS7 F30TS401G5.3.5 | 8.112   | 3.000 | -11.700 | .000    | XM RP 1109.0000 IN.XO |
| (TJF161) | △      | (CA-8) K2.1TS7 F30TS401G5.3.5 | 10.252  | 3.000 | -11.700 | .000    | YM RP .0000 IN.YO     |
| (TJF162) | △      | (CA-8) K2.1TS7 F30TS401G5.3.5 | 12.237  | 3.000 | -11.700 | .000    | ZM RP 375.0000 IN.ZO  |
|          |        |                               |         |       |         |         | SCALE .0405           |

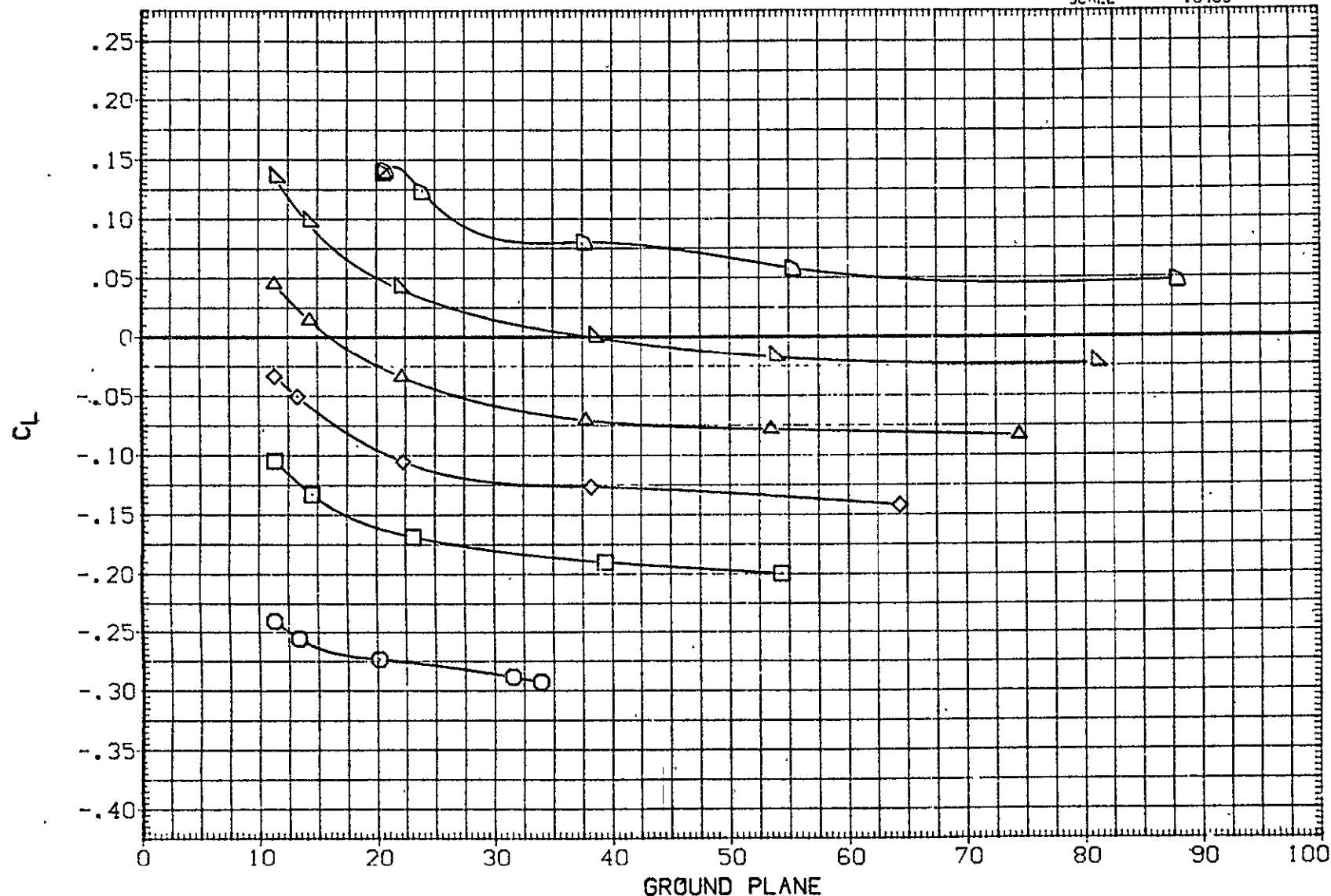


FIG 254 FERRY CON. IN GROUND PROXIMITY, HORIZ OFF, IORB = 3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF157) | ○      | (CA-8) K2.1TS7 F30TS401G5.3.5 | .235   | 3.000 | -11.700 | .000   | SREF                  | 2693.0000 | SQ.FT |
| (TJF158) | □      | (CA-8) K2.1TS7 F30TS401G5.3.5 | 4.200  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF159) | ×      | (CA-8) K2.1TS7 F30TS401G5.3.5 | 6.165  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF160) | △      | (CA-8) K2.1TS7 F30TS401G5.3.5 | 8.112  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF161) | ▽      | (CA-8) K2.1TS7 F30TS401G5.3.5 | 10.252 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF162) | ◇      | (CA-8) K2.1TS7 F30TS401G5.3.5 | 12.237 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                               |        |       |         |        | SCALE                 | .0405     |       |

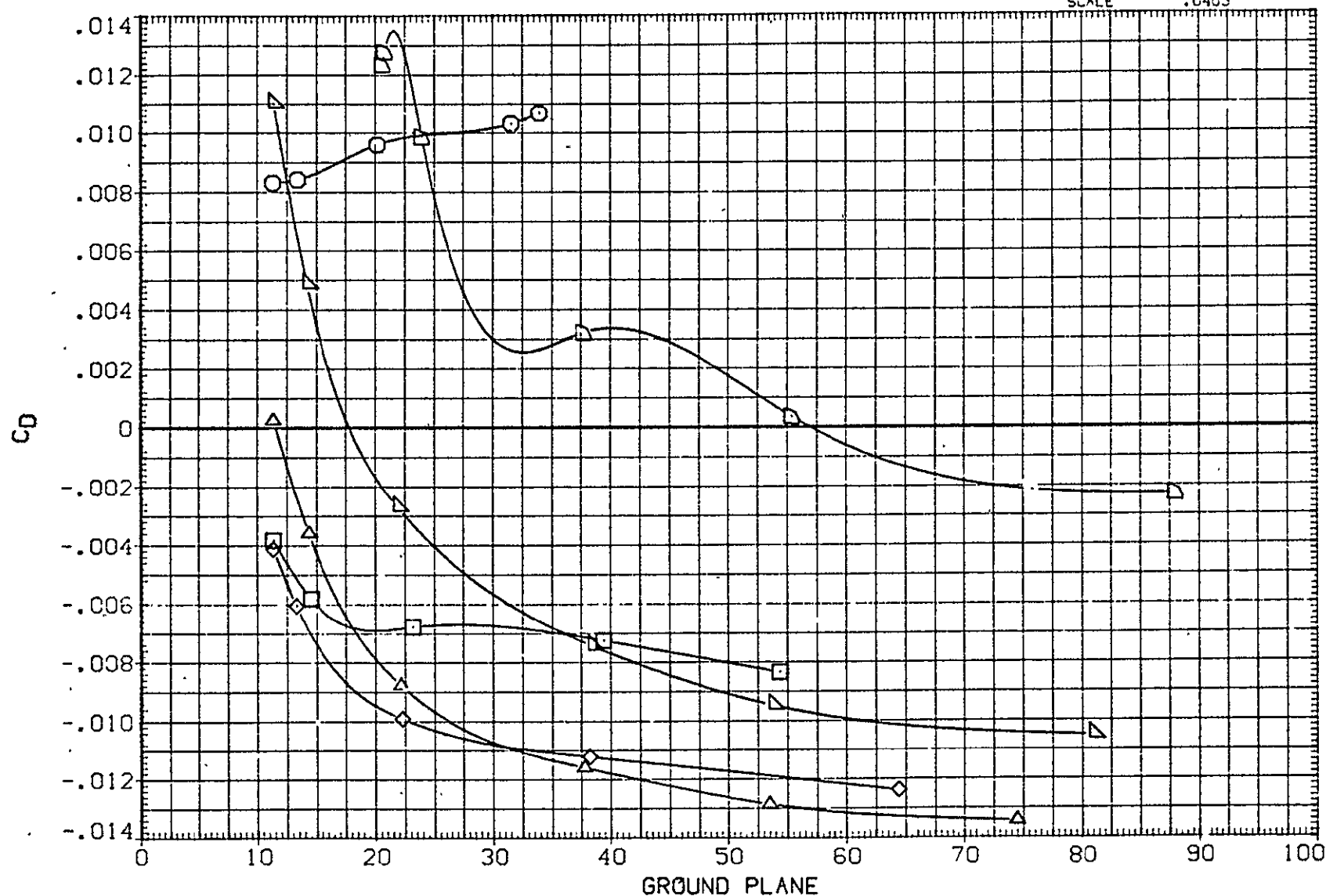


FIG 254 FERRY CON. IN GROUND PROXIMITY, HORIZ OFF. IORB = 3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF157) | ○      | (CA-8) K2.1TS7 F30TS401G5.3.5 | .235   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | SQ.FT |
| (TJF158) | □      | (CA-8) K2.1TS7 F30TS401G5.3.5 | 4.200  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF159) | ◇      | (CA-8) K2.1TS7 F30TS401G5.3.5 | 6.165  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF160) | △      | (CA-8) K2.1TS7 F30TS401G5.3.5 | 8.112  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.XO |
| (TJF161) | ▽      | (CA-8) K2.1TS7 F30TS401G5.3.5 | 10.252 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.YO |
| (TJF162) | ◁      | (CA-8) K2.1TS7 F30TS401G5.3.5 | 12.237 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                               |        |       |         |        | SCALE                 | .0405     |       |

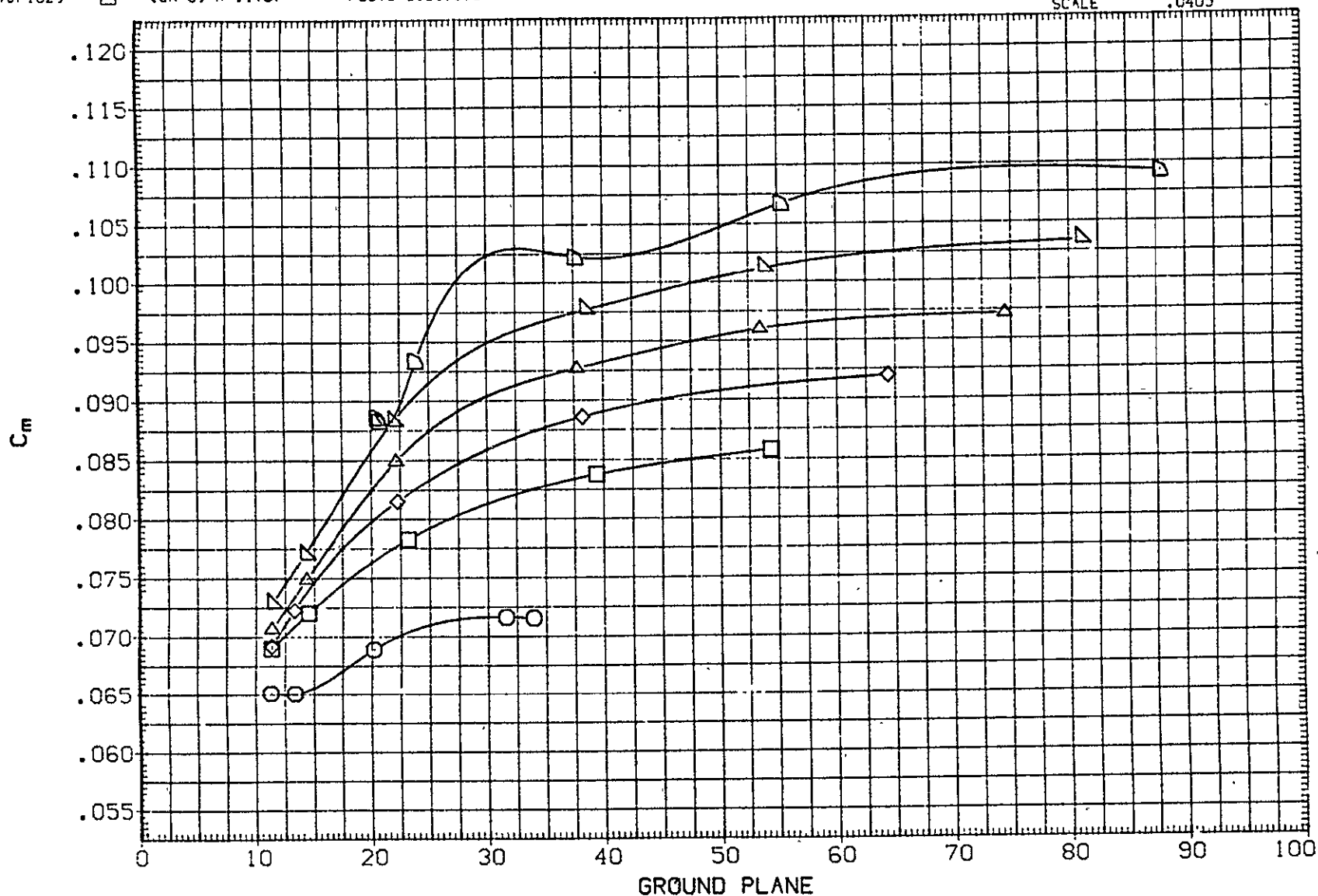


FIG 254 FERRY CON. IN GROUND PROXIMITY, HORIZ OFF. IORB = 3. TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | IORB  | BOFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------------------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF136) | ○      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | .219               | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50.FT |
| (TJF137) | □      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 2.234              | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF133) | ×      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 4.192              | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF134) | △      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 6.216              | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF135) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 8.254              | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF138) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 10.169             | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |                    |       |         |        | SCALE                 | .0405     |       |

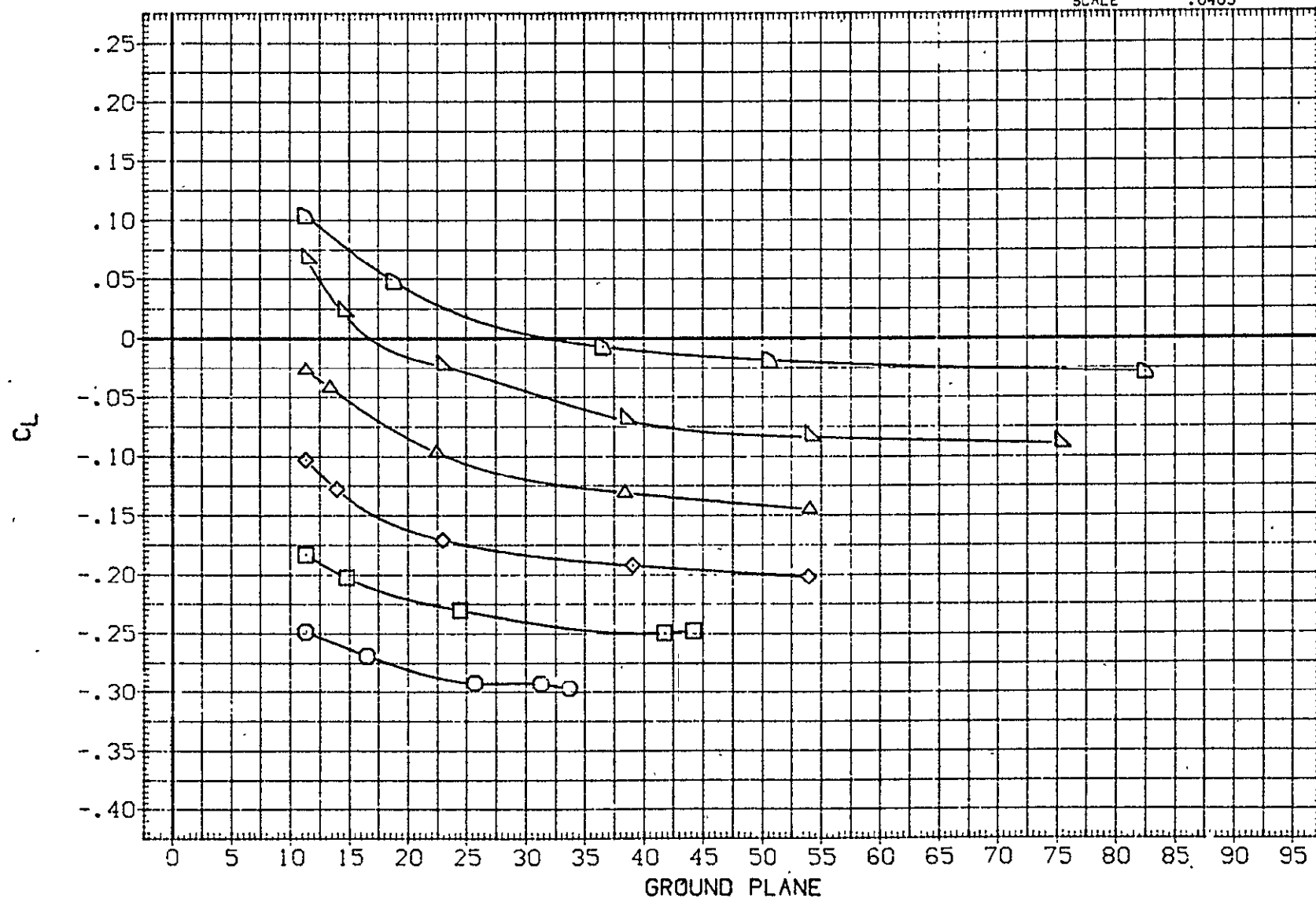


FIG 255 FERRY CON. IN GROUND PROXIMITY, STAB = 0, IORB = 3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF136) | ○      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | .219   | 3.000 | -11.700 | .000   | SREF                  | 2090.0000 | 50. FT |
| (TJF137) | □      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 2.234  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.    |
| (TJF132) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 4.192  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.    |
| (TJF134) | △      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 6.216  | 3.000 | -11.700 | .000   | XMPP                  | 1109.0000 | IN. X0 |
| (TJF135) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 8.254  | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN. Y0 |
| (TJF138) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 10.169 | 3.000 | -11.700 | .000   | ZMPP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

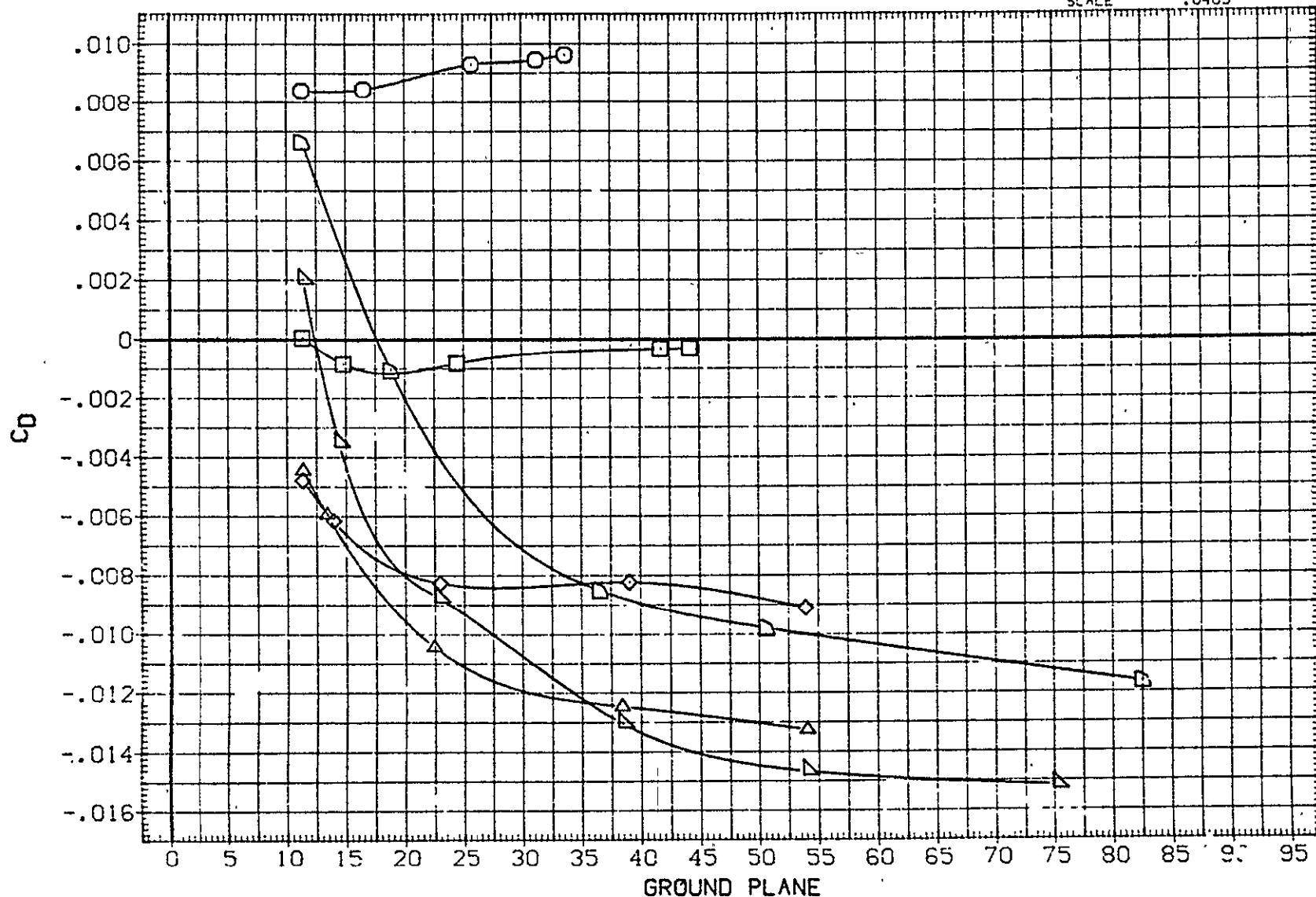


FIG 255 FERRY CON. IN GROUND PROXIMITY. STAB = 0. IORB = 3. TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | I <sub>ORB</sub> | BD <sub>FLAP</sub> | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------------------|------------------|--------------------|--------|-----------------------|-----------|-------|
| (TJF136) | ○      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | .219               | 3.000            | -11.700            | .000   | SREF                  | 2690.0000 | SQ.FT |
| (TJF137) | □      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 2.234              | 3.000            | -11.700            | .000   | LREF                  | 474.8100  | IN.   |
| (TJF133) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 4.192              | 3.000            | -11.700            | .000   | BREF                  | 936.6800  | IN.   |
| (TJF134) | △      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 6.216              | 3.000            | -11.700            | .000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF135) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 8.254              | 3.000            | -11.700            | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF138) | ◻      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 10.169             | 3.000            | -11.700            | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |                    |                  |                    |        | SCALE                 | .0405     |       |



FIG 255 FERRY CON. IN GROUND PROXIMITY, STAB = 0, I<sub>ORB</sub> = 3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A) MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF134) | ○      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 6.216  | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | SQ.FT |
| (TJF135) | □      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 8.254  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF138) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 10.169 | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF139) | △      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 12.226 | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.XO |
| (TJF140) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 14.293 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.YO |
| (TJF141) | ◁      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 16.297 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

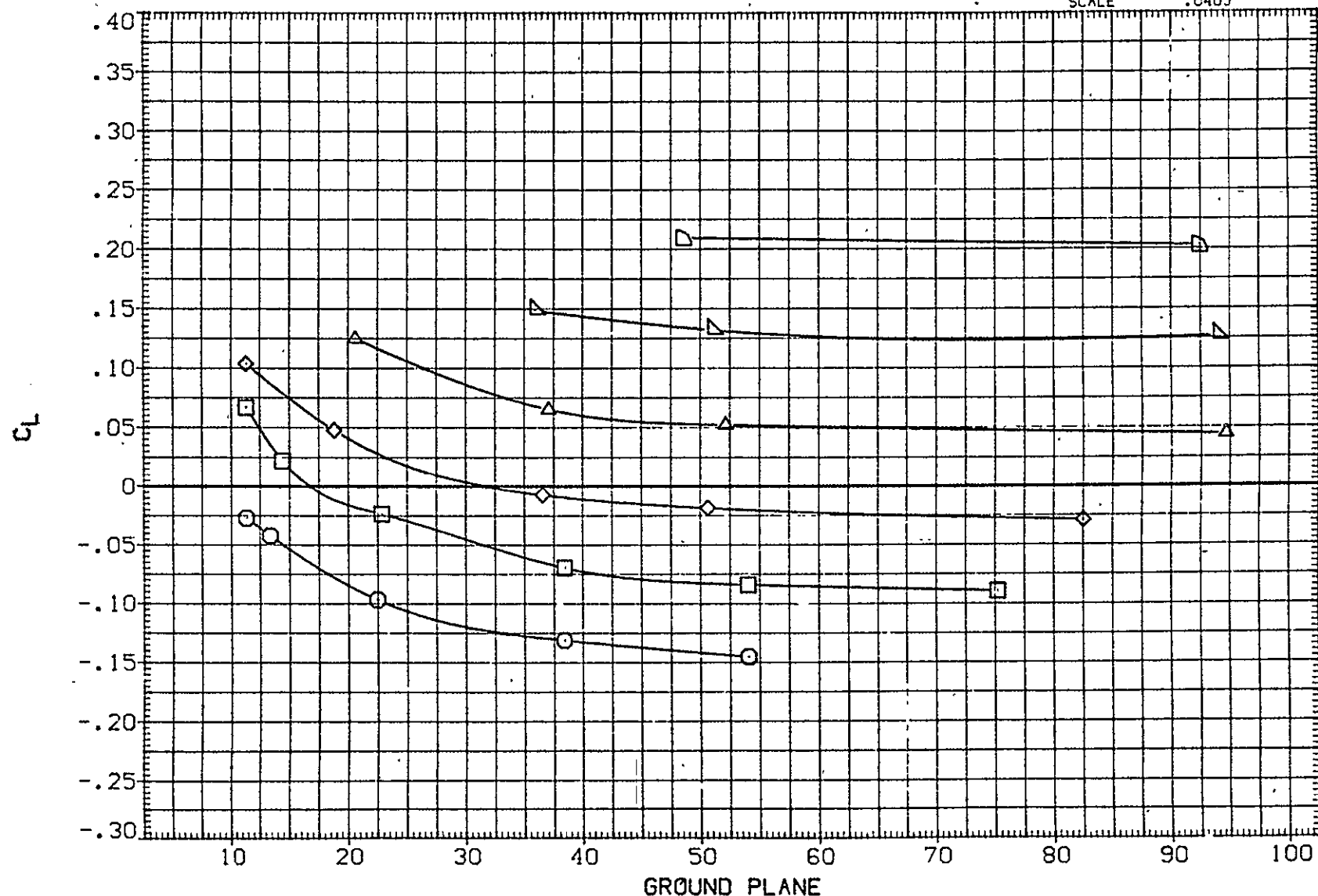


FIG 256 FERRY CON. IN GROUND PROXIMITY, STAB = 0. IORB = 3. TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF134) | ○      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 6.216  | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | SQ.FT  |
| (TJF135) | □      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 8.254  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.    |
| (TJF138) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 10.169 | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.    |
| (TJF139) | △      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 12.226 | 3.000 | -11.700 | .000   | XM RP                 | 1109.0000 | IN. X0 |
| (TJF140) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 14.293 | 3.000 | -11.700 | .000   | YM RP                 | .0000     | IN. Y0 |
| (TJF141) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 16.297 | 3.000 | -11.700 | .000   | ZM RP                 | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

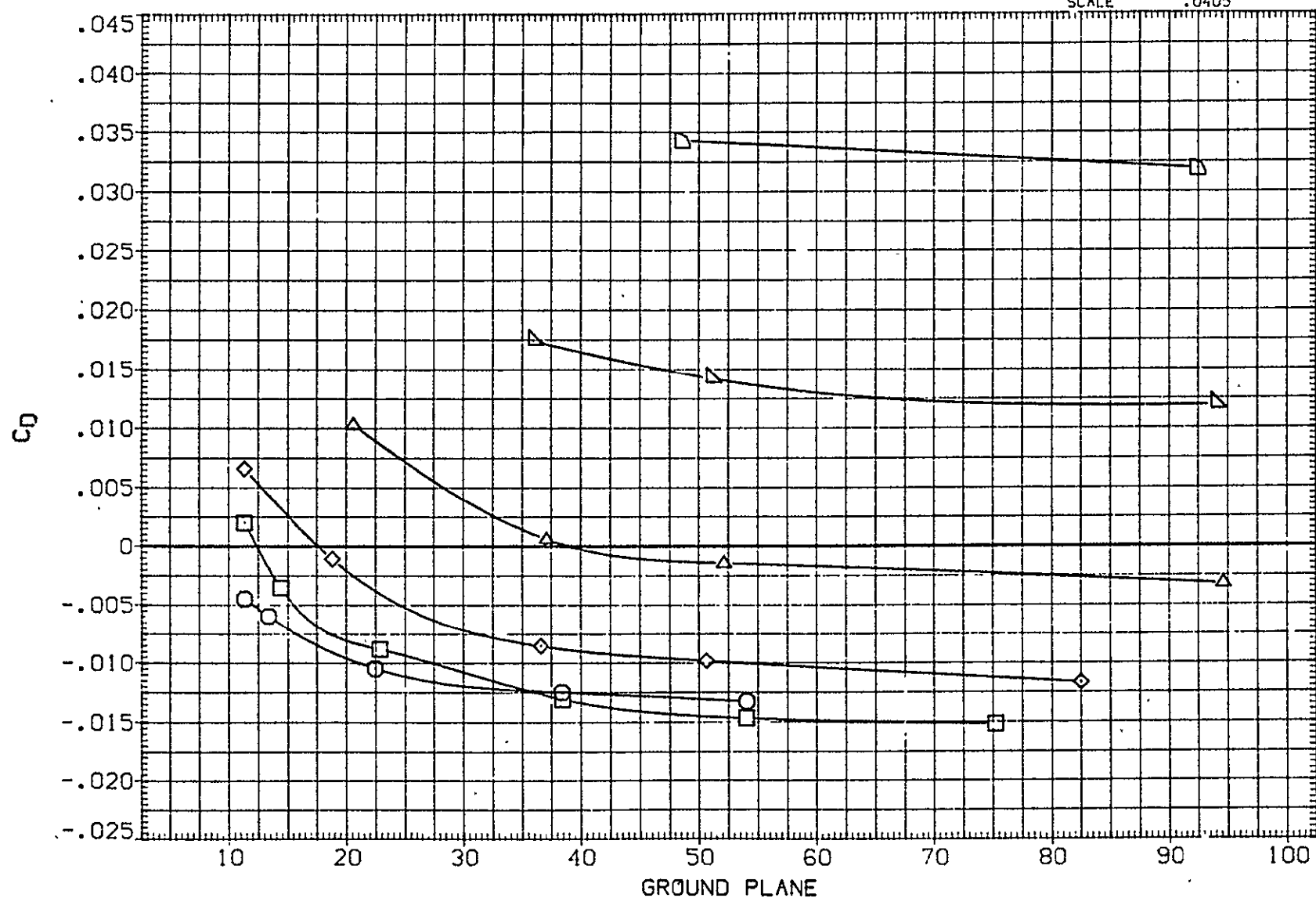


FIG 256 FERRY CON. IN GROUND PROXIMITY, STAB = 0, IORB = 3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF134) | ○      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 6.216  | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | SQ.FT |
| (TJF135) | □      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 8.254  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF138) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 10.169 | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF139) | △      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 12.226 | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.XO |
| (TJF140) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 14.293 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.YO |
| (TJF141) | ◊      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 16.297 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

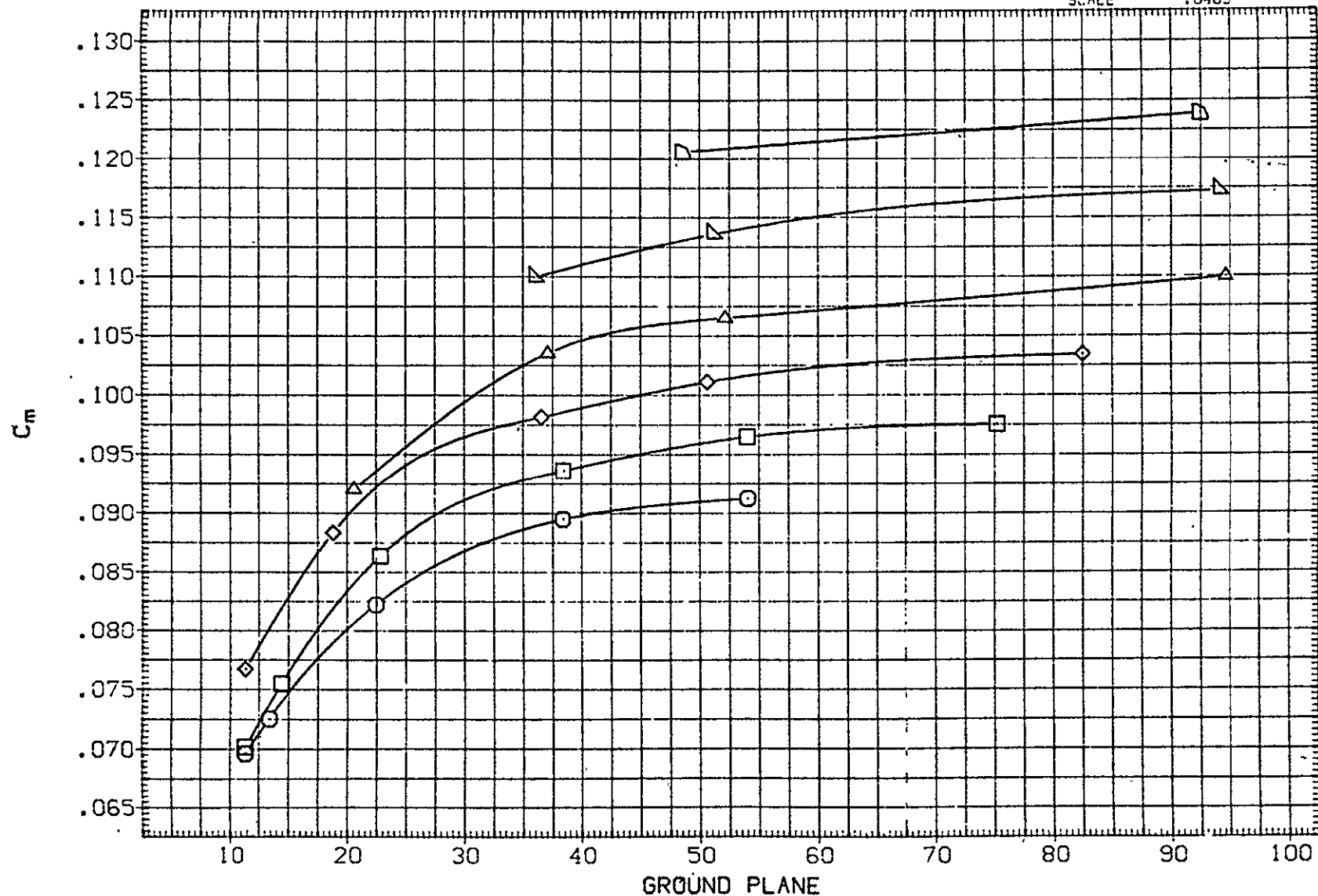


FIG 256 FERRY CON. IN GROUND PROXIMITY, STAB = 0, IORB = 3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF142) | ○      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | .177   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | SQ.FT |
| (TJF143) | □      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 2.164  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF144) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 4.247  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF145) | △      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 6.166  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF146) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 8.099  | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF147) | ◻      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 10.174 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

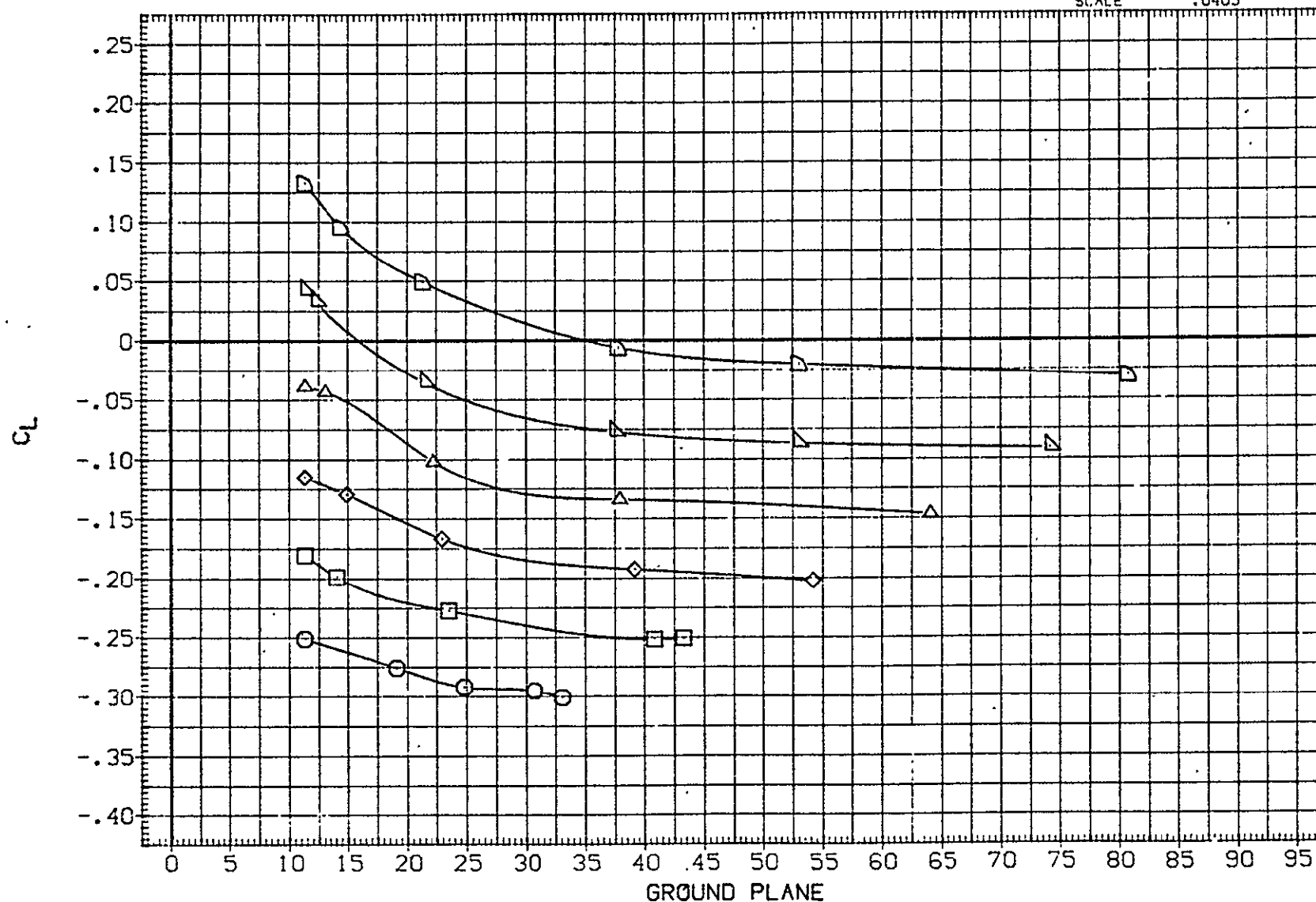


FIG 257 FERRY CON. IN GROUND PROXIMITY, STAB = -2. IORB = 3. TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BOFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF142) | ○      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | .177   | 3.000 | -11.7C0 | .000   | SREF                  | 2690.0000 | SQ.FT |
| (TJF143) | □      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 2.164  | 3.000 | -11.7C0 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF144) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 4.247  | 3.000 | -11.7C0 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF145) | △      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 6.166  | 3.000 | -11.7C0 | .000   | XMRF                  | 1109.0000 | IN.X0 |
| (TJF146) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 8.099  | 3.000 | -11.7C0 | .000   | YMRF                  | .0000     | IN.Y0 |
| (TJF147) | ◁      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 10.174 | 3.000 | -11.7C0 | .000   | ZMRF                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

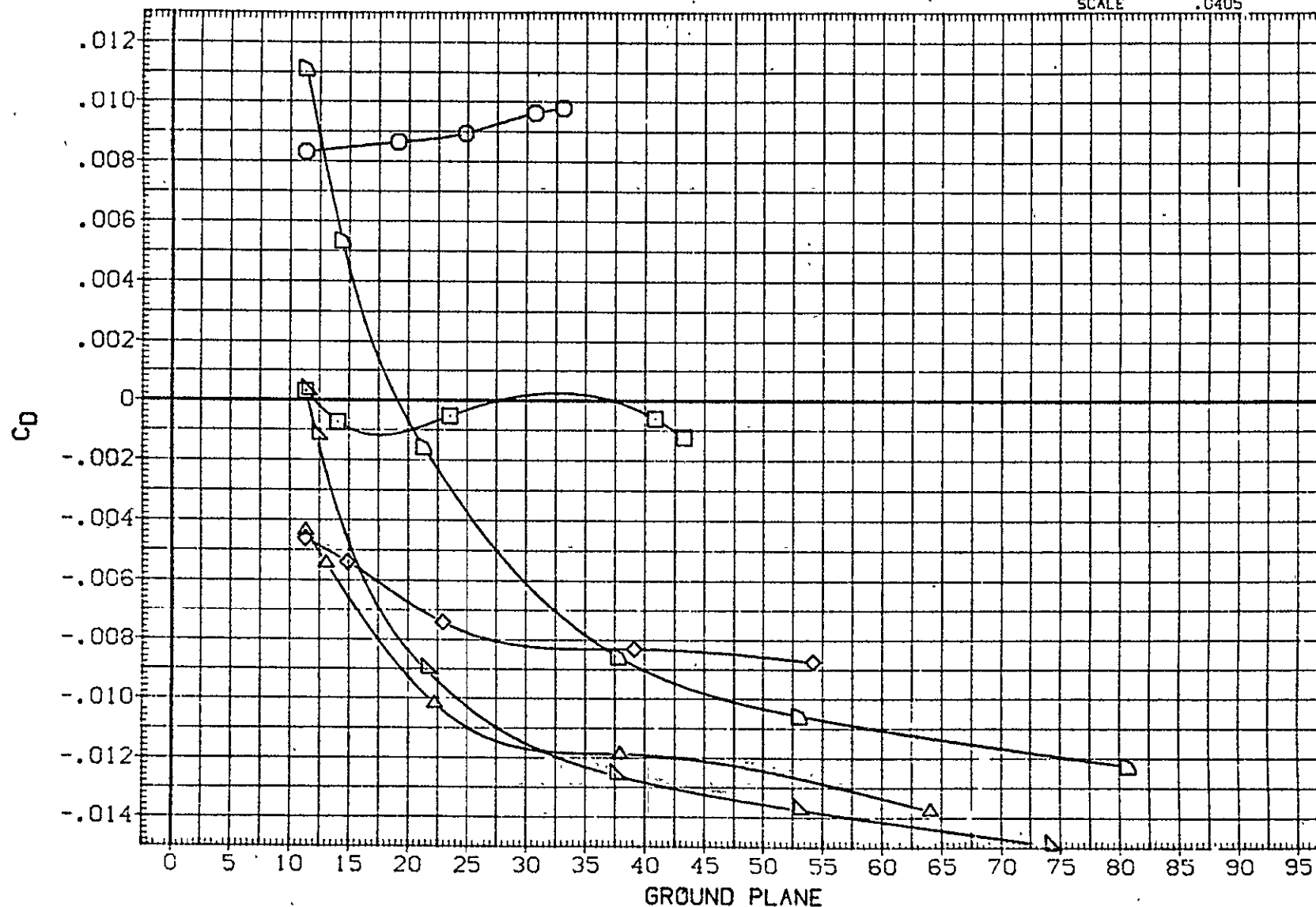


FIG 257 FERRY CON. IN GROUND PROXIMITY, STAB = -2. IORB = 3. TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA W | IOPR  | BDFLAP  | ELEVON | REFERENCE INFORMATION |                 |
|----------|--------|-------------------------------------|---------|-------|---------|--------|-----------------------|-----------------|
| (TJF142) | ○      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | .177    | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 SQ.FT |
| (TJF143) | □      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 2.164   | 3.000 | -11.700 | .000   | LREF                  | 474.8100 IN.    |
| (TJF144) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 4.247   | 3.000 | -11.700 | .000   | BREF                  | 936.6800 IN.    |
| (TJF145) | △      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 6.166   | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 IN.X0 |
| (TJF146) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 8.099   | 3.000 | -11.700 | .000   | YMRP                  | .0000 IN.Y0     |
| (TJF147) | ▷      | (CA-8) K2.1TS7H15.6.1F30TS401L5.3.5 | 10.174  | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000 IN.Z0  |
|          |        |                                     |         |       |         |        | SCALE                 | .0405           |

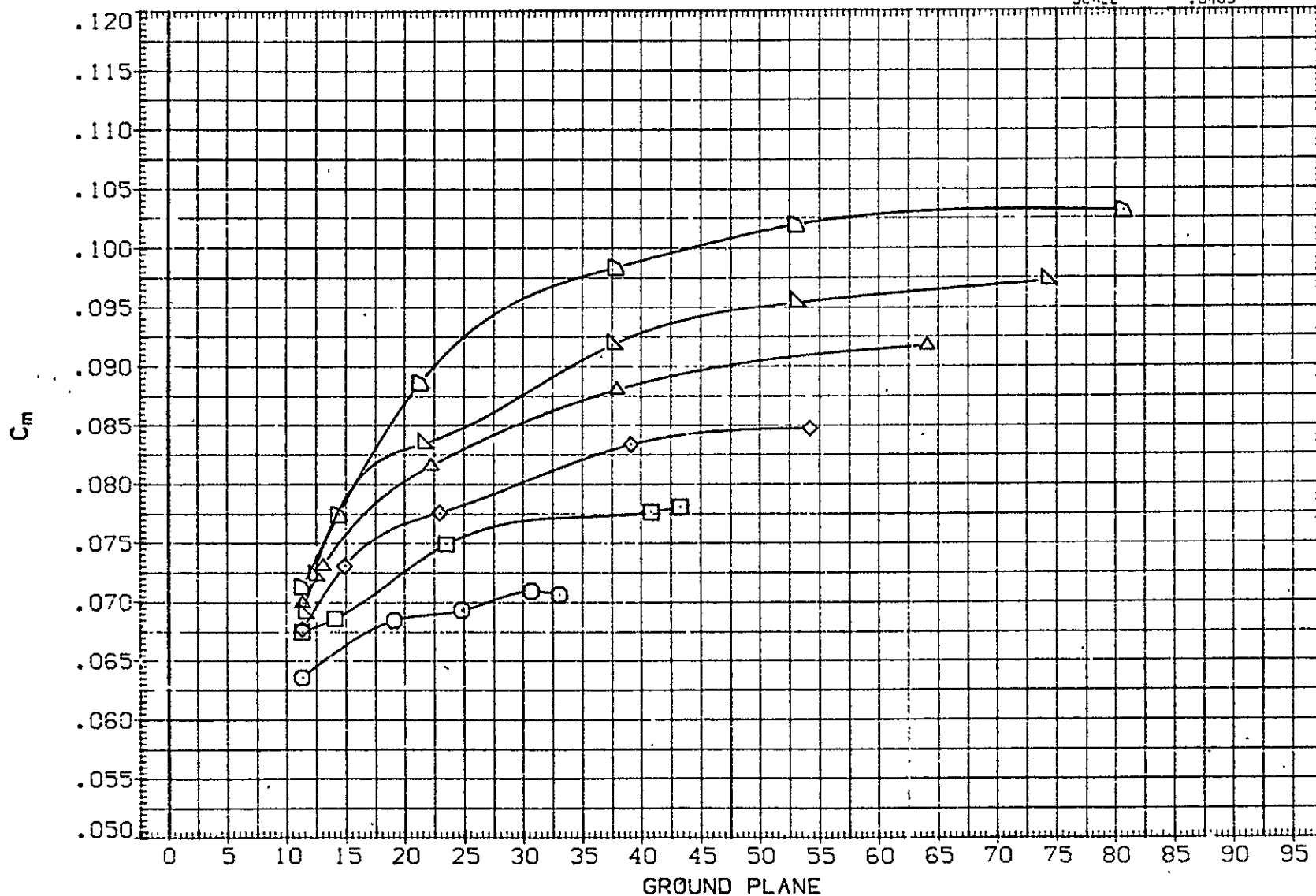


FIG 257 FERRY CON. IN GROUND PROXIMITY, STAB = -2, IORB = 3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF145) | ○      | (CA-8) K2.1TS7H15.6.1F30TS40165.3.5 | 6.166  | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50. FT |
| (TJF146) | □      | (CA-8) K2.1TS7H15.6.1F30TS40165.3.5 | 8.099  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.    |
| (TJF147) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS40165.3.5 | 10.174 | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.    |
| (TJF148) | △      | (CA-8) K2.1TS7H15.6.1F30TS40165.3.5 | 12.110 | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN. X0 |
| (TJF149) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS40165.3.5 | 14.219 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN. Y0 |
| (TJF150) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS40165.3.5 | 16.235 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

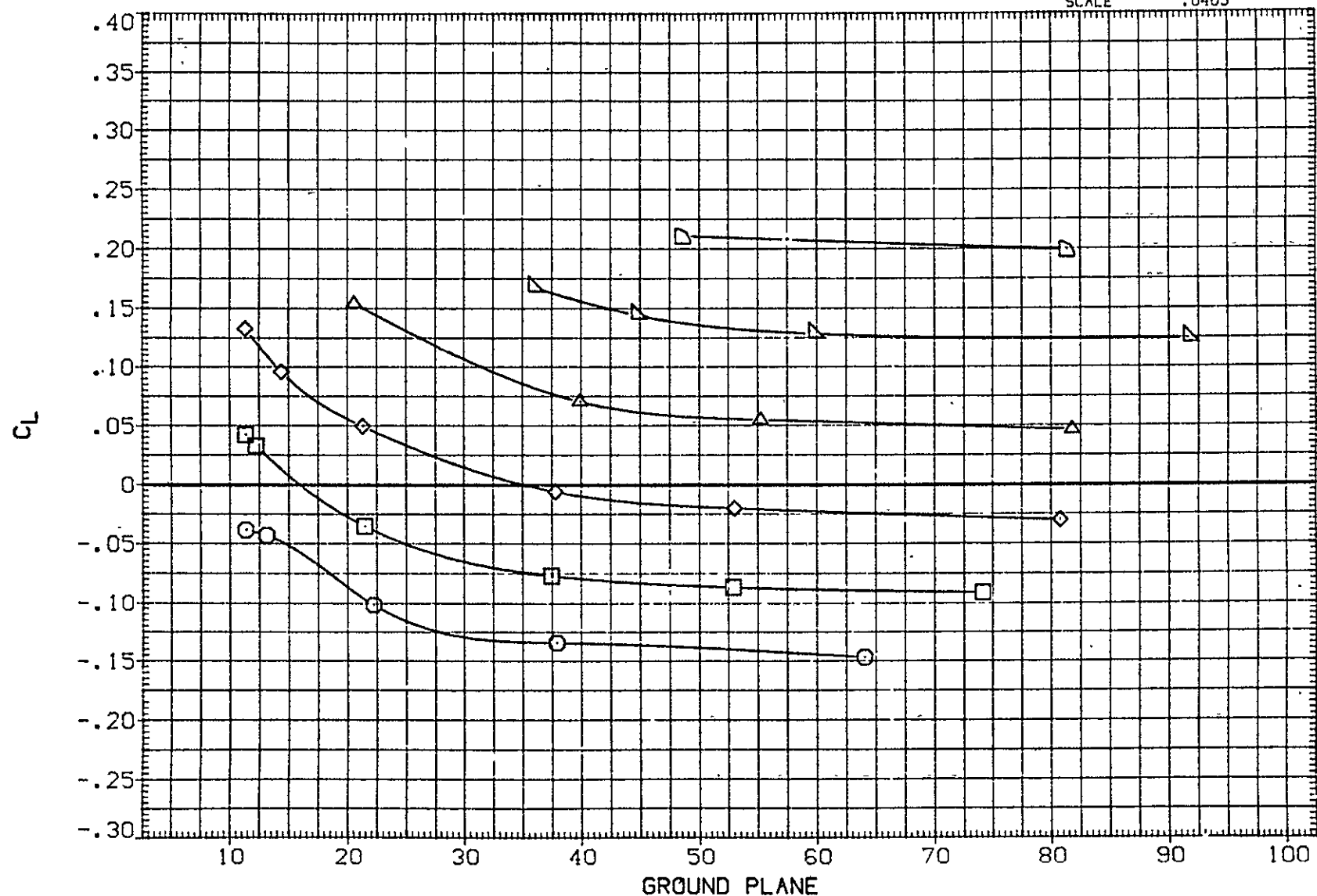


FIG 258 FERRY CON. IN GROUND PROXIMITY. STAB = -2. IORB = 3. TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA W | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|---------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF145) | ○      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 6.166   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50. FT |
| (TJF146) | □      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 8.099   | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.    |
| (TJF147) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 10.174  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.    |
| (TJF148) | △      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 12.110  | 3.000 | -11.700 | .000   | XM RP                 | 1109.0000 | IN. X0 |
| (TJF149) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 14.219  | 3.000 | -11.700 | .000   | YM RP                 | .0000     | IN. Y0 |
| (TJF150) | ◻      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 16.235  | 3.000 | -11.700 | .000   | ZM RP                 | 375.0000  | IN. Z0 |
|          |        |                                     |         |       |         |        | SCALE                 | .0405     |        |

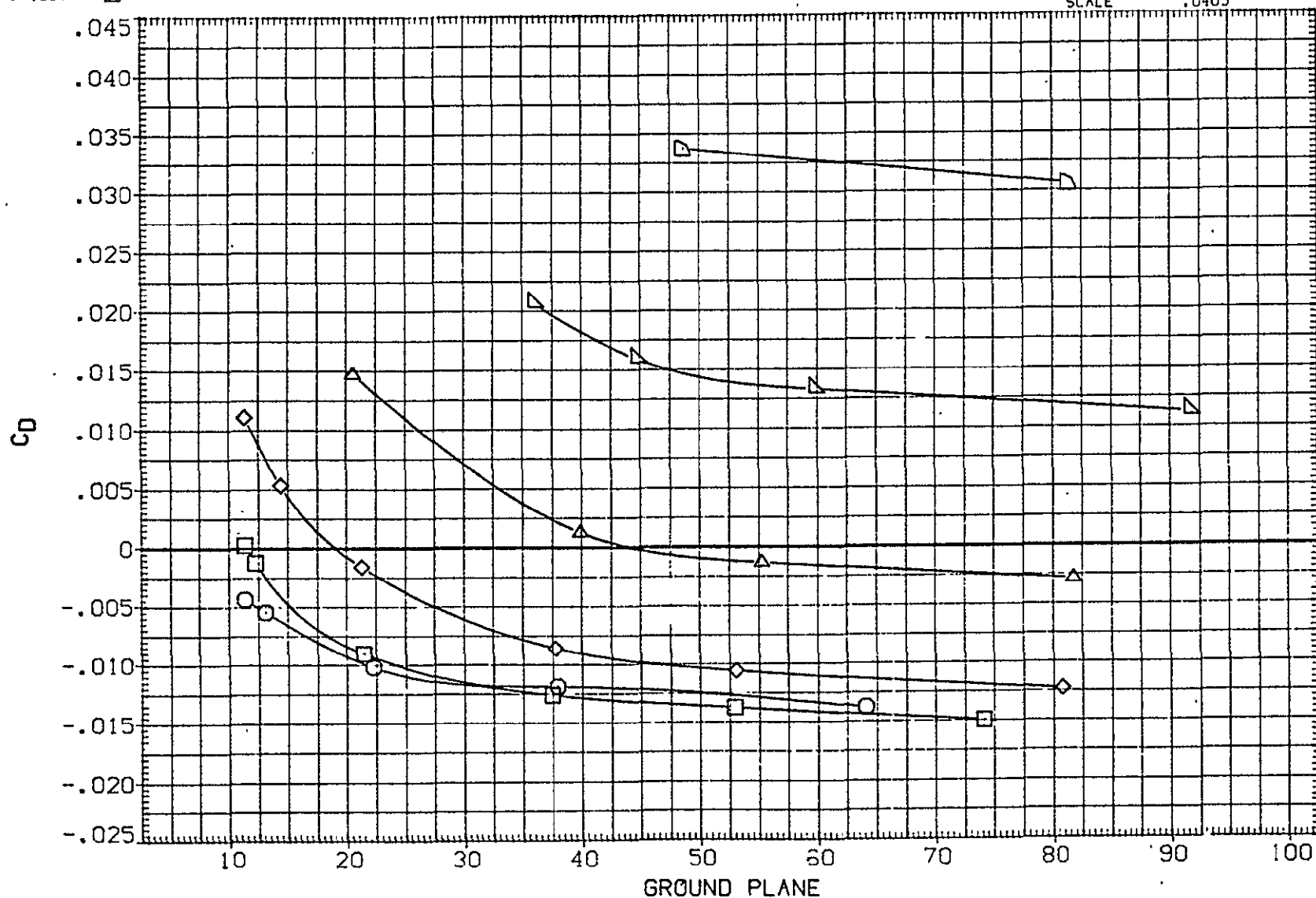


FIG 258 FERRY CON. IN GROUND PROXIMITY, STAB = -2, IORB = 3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF145) | □      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 6.166  | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50. FT |
| (TJF146) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 8.099  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.    |
| (TJF147) | △      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 10.174 | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.    |
| (TJF148) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 12.110 | 3.000 | -11.700 | .000   | XMRF                  | 1109.0000 | IN.X0  |
| (TJF149) | ◻      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 14.219 | 3.000 | -11.700 | .000   | YMRF                  | .0000     | IN.Y0  |
| (TJF150) | ◻      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 16.235 | 3.000 | -11.700 | .000   | ZMRF                  | 375.0000  | IN.Z0  |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

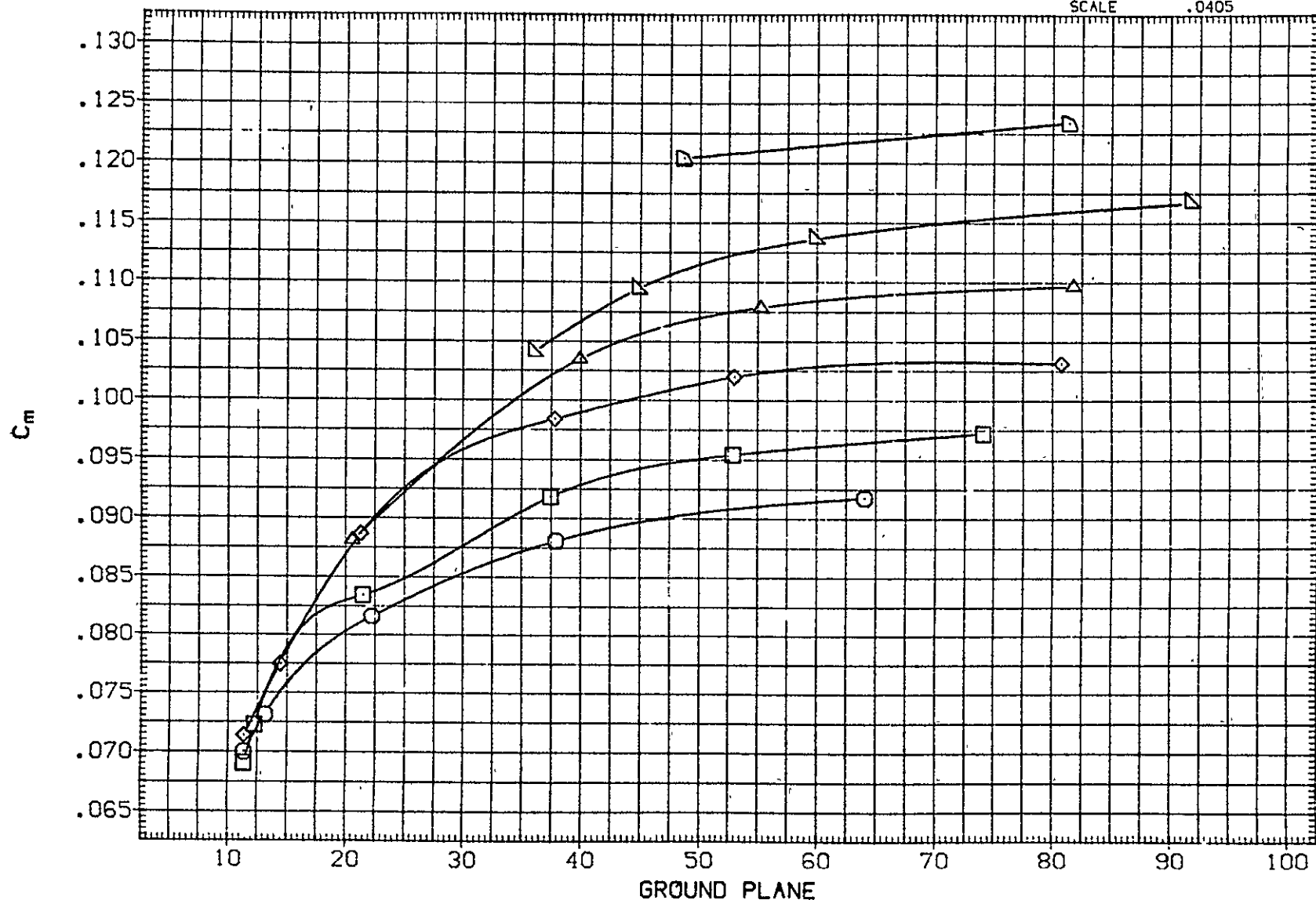


FIG 258 FERRY CON. IN GROUND PROXIMITY, STAB = -2, IORB = 3, TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | I <sub>ORB</sub> | B <sub>D</sub> FLAP | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------------------|------------------|---------------------|--------|-----------------------|-----------|--------|
| (TJF151) | □      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | .159               | 3.000            | -11.700             | .000   | SREF                  | 2690.0000 | 50. FT |
| (TJF152) | ○      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 4.158              | 3.000            | -11.700             | .000   | LREF                  | 474.8100  | IN.    |
| (TJF153) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 8.110              | 3.000            | -11.700             | .000   | BREF                  | 936.6800  | IN.    |
| (TJF154) | △      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 6.239              | 3.000            | -11.700             | .000   | XMRP                  | 1109.0000 | IN. X0 |
| (TJF155) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 10.147             | 3.000            | -11.700             | .000   | YMRP                  | .0000     | IN. Y0 |
| (TJF156) | ◻      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 12.148             | 3.000            | -11.700             | .000   | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |                    |                  |                     |        | SCALE                 | .0405     |        |

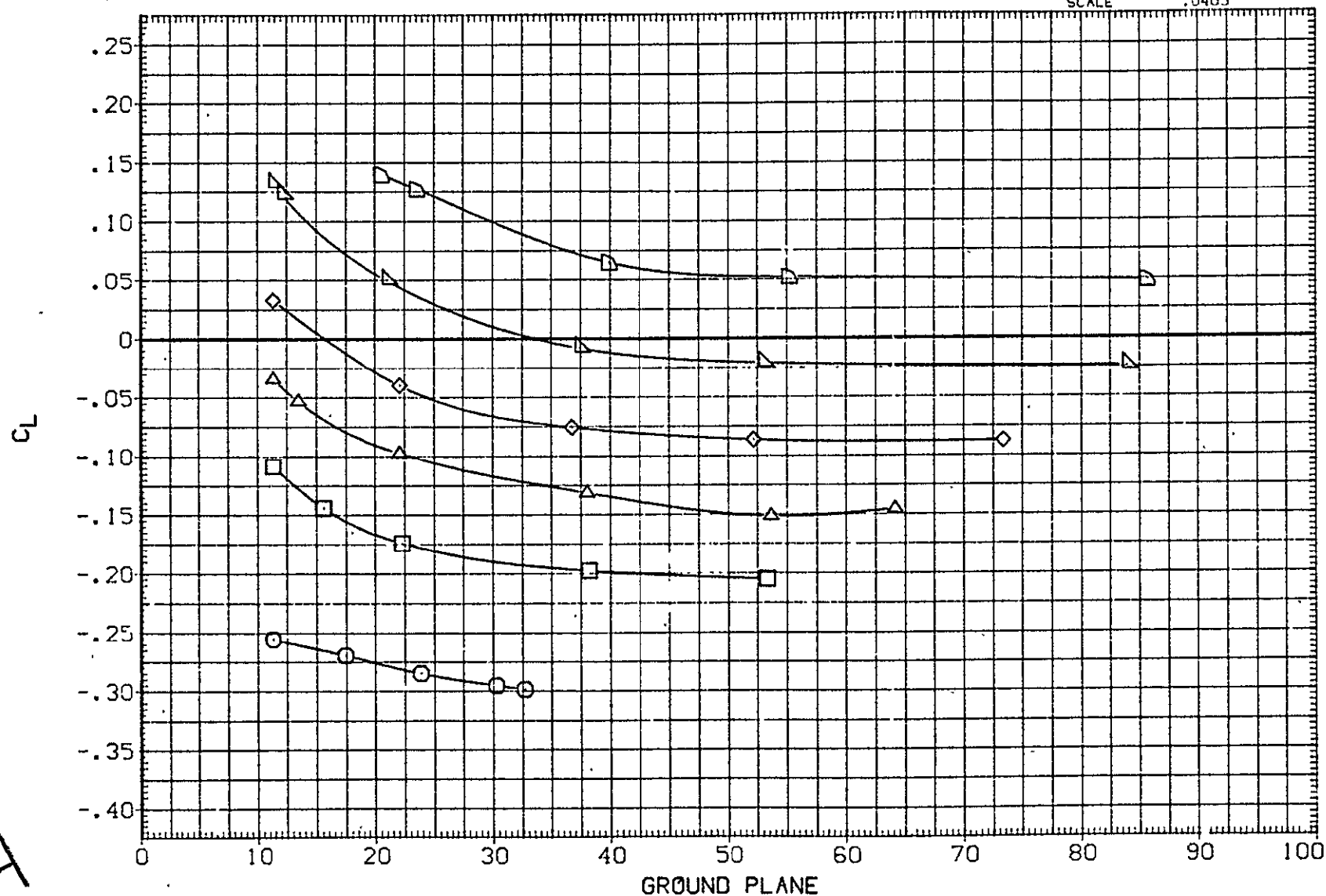


FIG 259 FERRY CON. IN GROUND PROXIMITY, STAB = -4, I<sub>ORB</sub> = 3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF151) | ○      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | .159   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | SQ.FT |
| (TJF152) | □      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 4.158  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF153) | △      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 8.110  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF154) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 6.239  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF155) | △      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 10.147 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF156) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 12.148 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

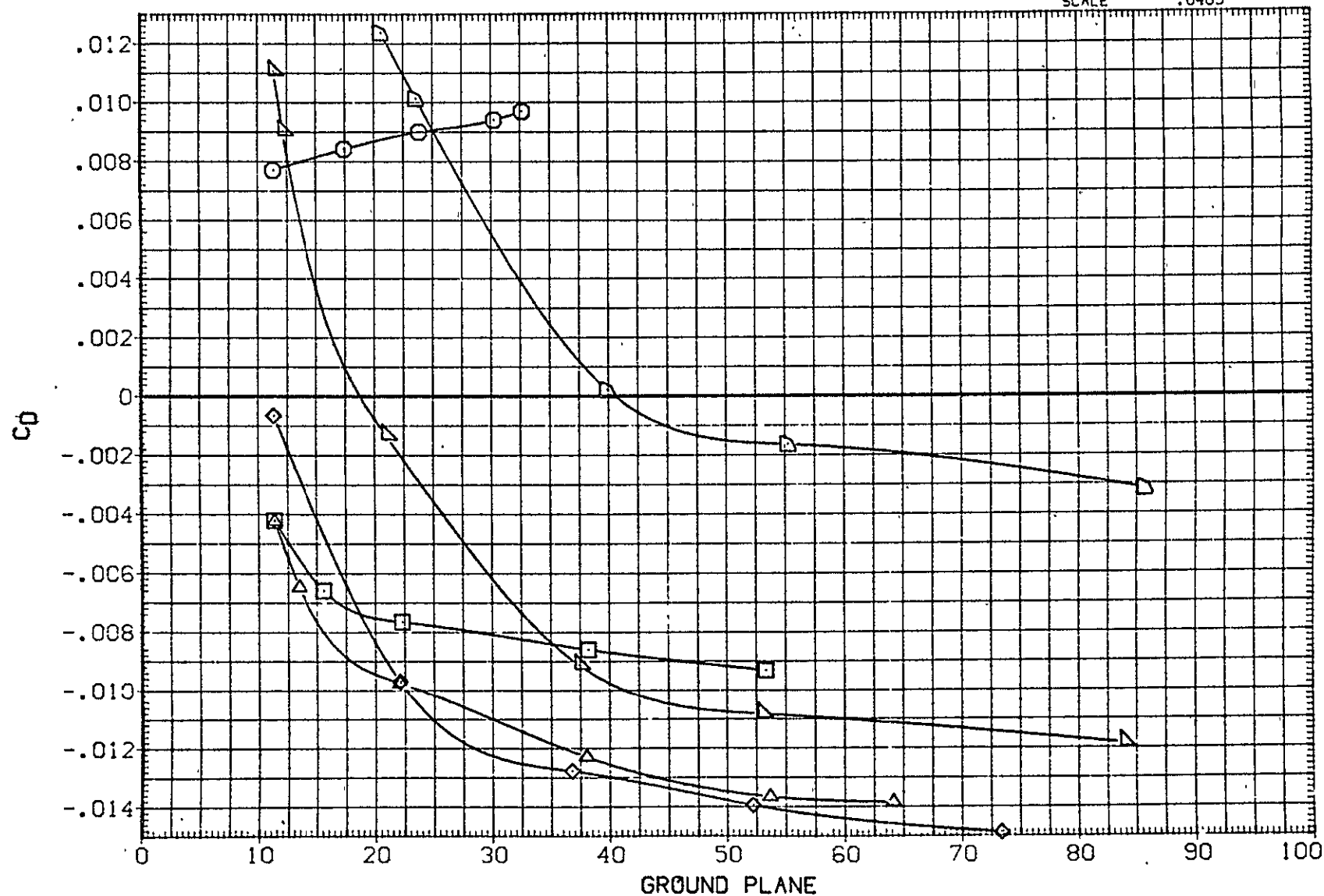


FIG 259 FERRY CON. IN GROUND PROXIMITY. STAB = -4. IORB = 3. TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | I <sub>ORB</sub> | B <sub>D</sub> FLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------------------|------------------|---------------------|--------|-----------------------|-----------|-------|
| (TJF151) | □      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | .159               | 3.000            | -11.700             | .000   | SREF                  | 2690.0000 | SQ.FT |
| (TJF152) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 4.158              | 3.000            | -11.700             | .000   | LREF                  | 474.8100  | IN.   |
| (TJF153) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 8.110              | 3.000            | -11.700             | .000   | BREF                  | 936.6800  | IN.   |
| (TJF154) | △      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 6.239              | 3.000            | -11.700             | .000   | XMRP                  | 1109.0000 | IN.XO |
| (TJF155) | △      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 10.147             | 3.000            | -11.700             | .000   | YMRP                  | .0000     | IN.YO |
| (TJF156) | △      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 12.148             | 3.000            | -11.700             | .000   | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                                     |                    |                  |                     |        | SCALE                 | .0405     |       |

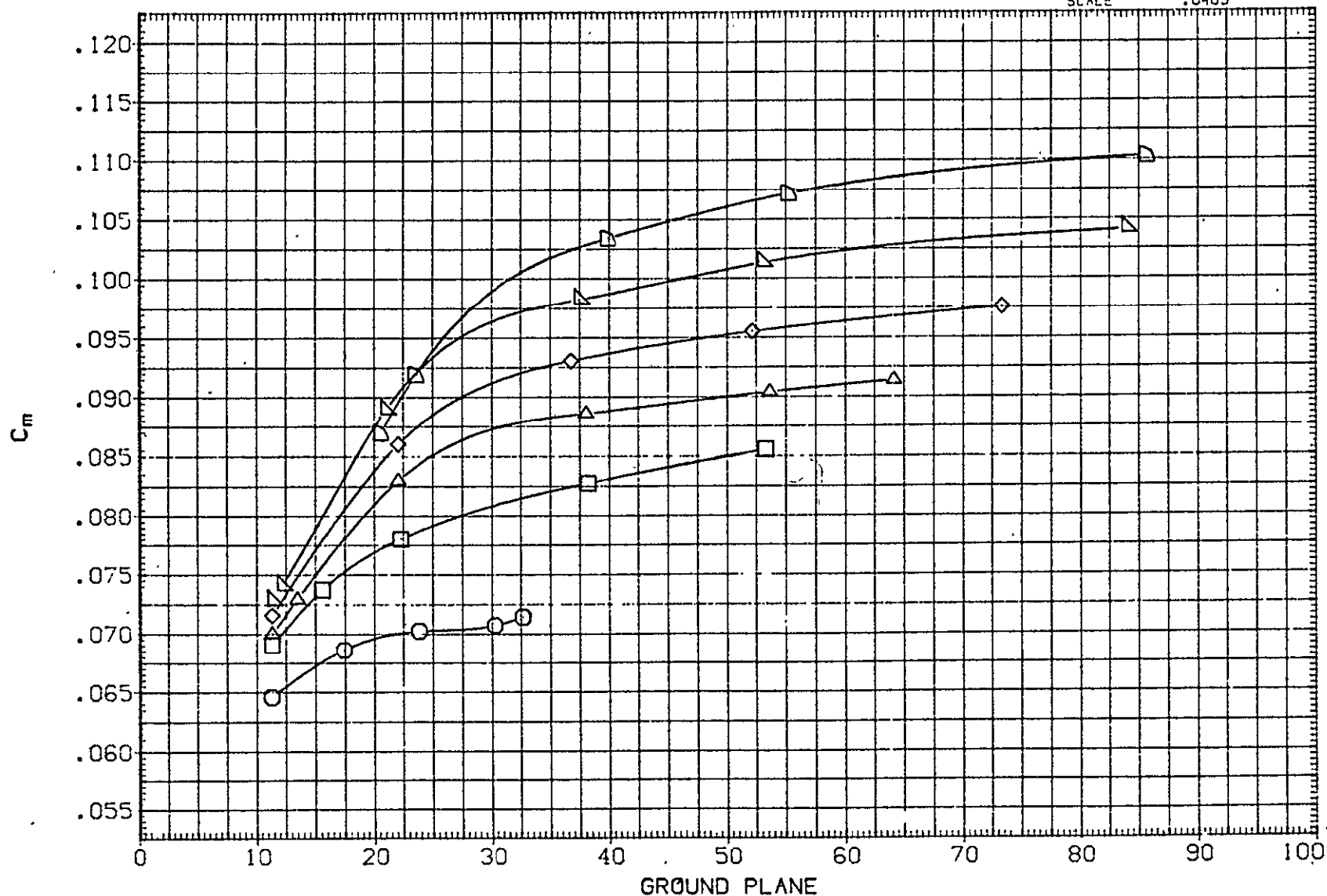


FIG 259 FERRY CON. IN GROUND PROXIMITY. STAB = -4. I<sub>ORB</sub> = 3. TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | EI EVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|---------|-----------------------|-----------|-------|
| (TJF163) | □      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | .158   | 3.000 | -11.700 | .000    | SREF                  | 2690.0000 | SQ.FT |
| (TJF164) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 4.201  | 3.000 | -11.700 | .000    | LREF                  | 474.8100  | IN.   |
| (TJF165) | △      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 6.049  | 3.000 | -11.700 | .000    | BREF                  | 936.6800  | IN.   |
| (TJF166) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 8.213  | 3.000 | -11.700 | .000    | XMRP                  | 1109.0000 | IN.X0 |
| (TJF167) | △      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 10.229 | 3.000 | -11.700 | .000    | YMRP                  | .0000     | IN.Y0 |
| (TJF168) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 12.130 | 3.000 | -11.700 | .000    | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |         | SCALE                 | .0405     |       |

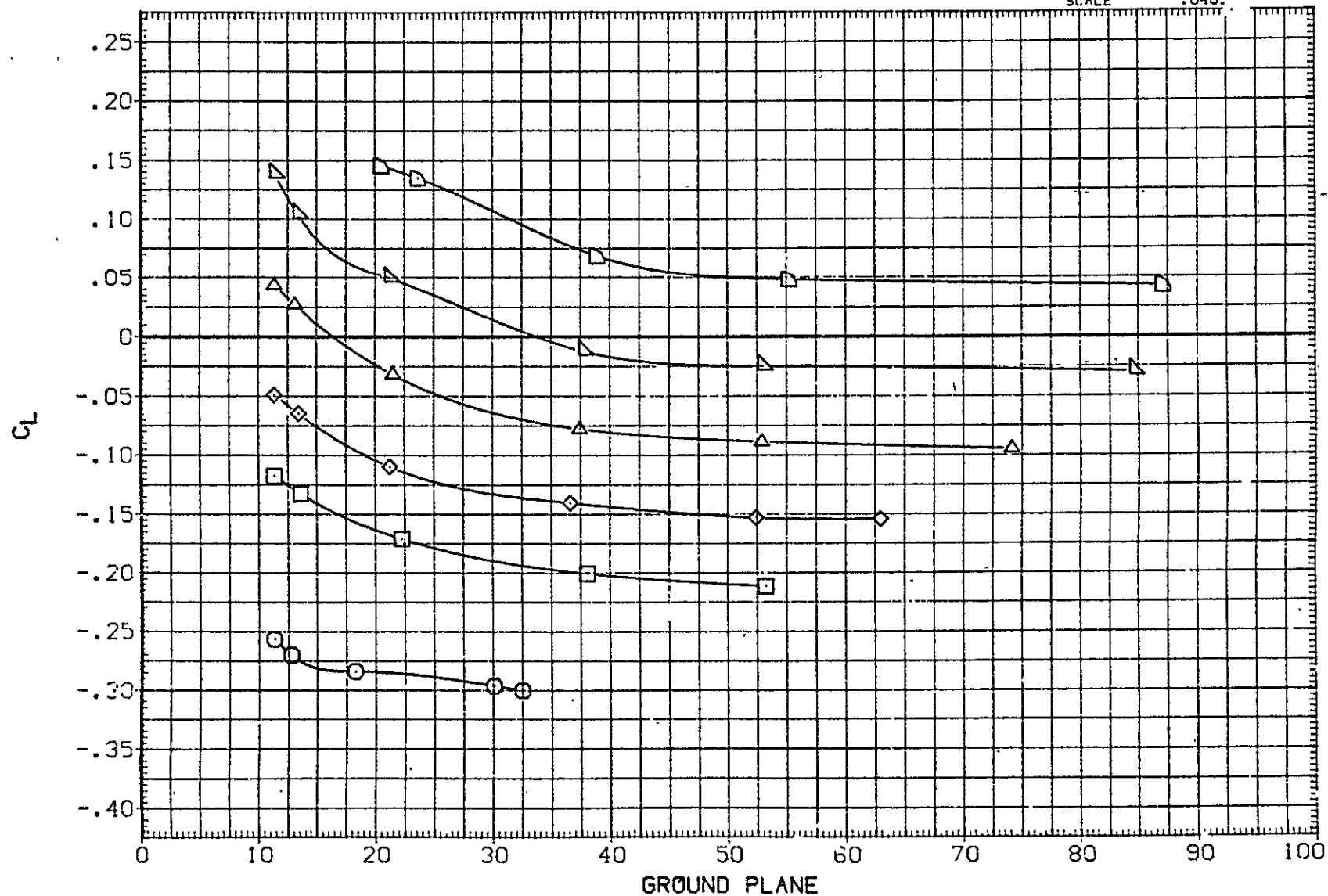


FIG 260 FERRY CON. IN GROUND PROXIMITY, STAB = -2, ELEVTR=-23, IORB=3, TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF163) | ○      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | .158   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | SG.FT |
| (TJF164) | □      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 4.201  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF165) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 6.049  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF166) | △      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 8.213  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF167) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 10.229 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF168) | ◻      | (CA-8) K2.1TS7H15.6.1F30TS401G5.3.5 | 12.130 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

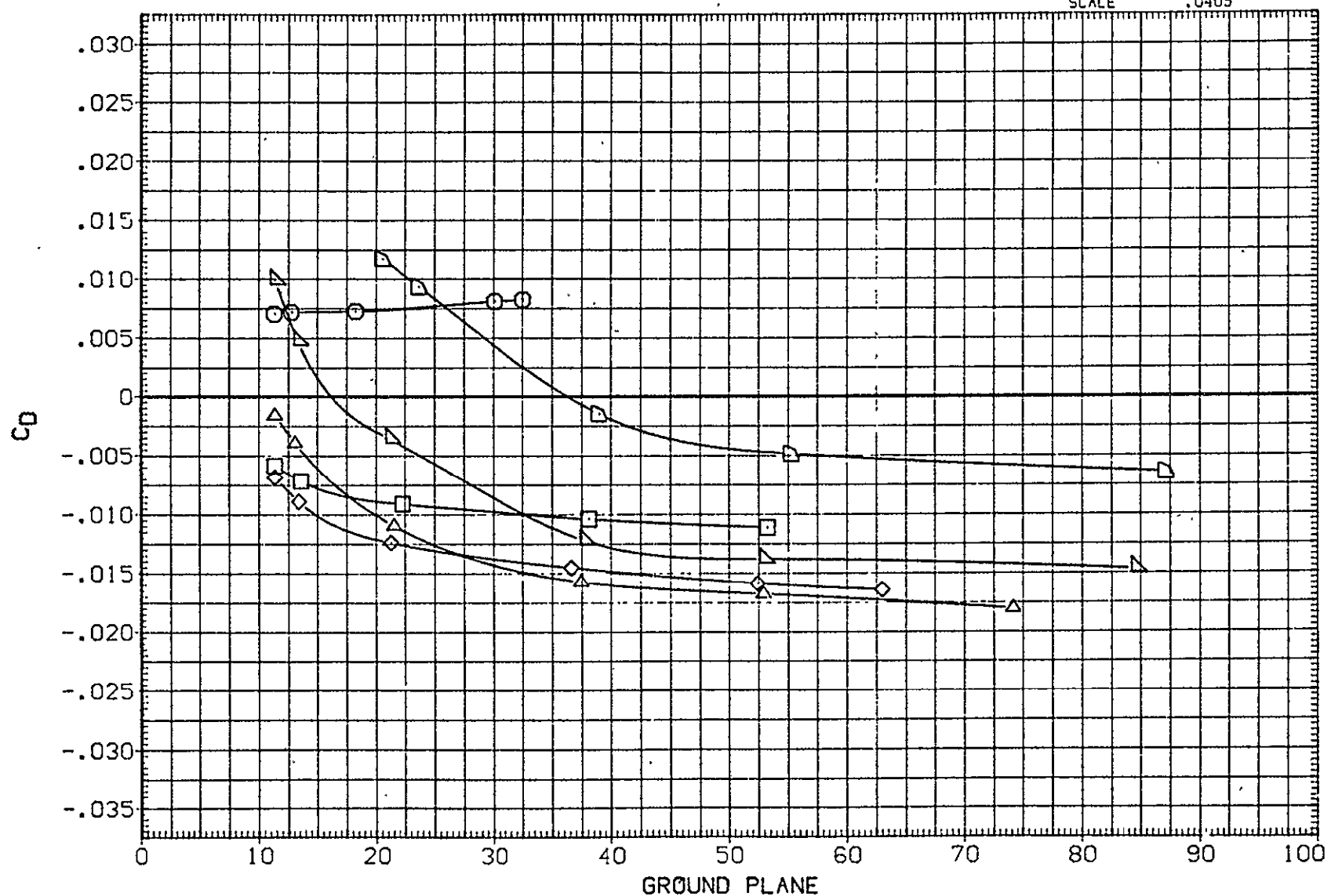


FIG 260 FERRY CON. IN GROUND PROXIMITY, STAB = -2, ELEVTR=-23, IORB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF163) | □      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | .158   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | SQ.FT |
| (TJF164) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 4.201  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF165) | △      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 6.049  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF166) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 8.213  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF167) | ◇      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 10.229 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF168) | ▽      | (CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5 | 12.130 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

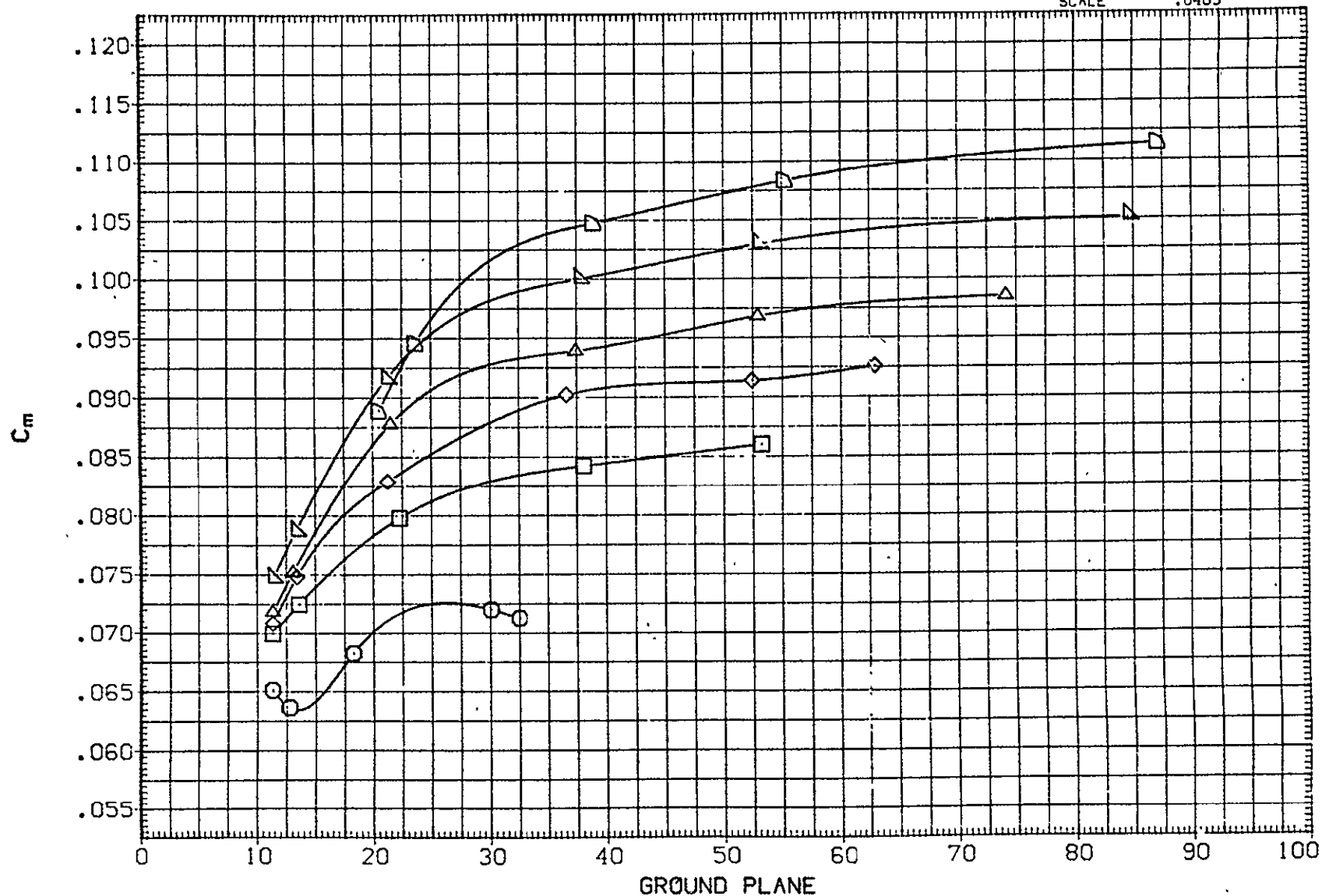


FIG 260 FERRY CON. IN GROUND PROXIMITY, STAB = -2, ELEVTR=-23, IORB=3. TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF193) | □      | (CA-8) K3.1TS7 F30TS40IG5.3.5 | .128   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF194) | ○      | (CA-8) K3.1TS7 F30TS40IG5.3.5 | 4.126  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF195) | ◇      | (CA-8) K3.1TS7 F30TS40IG5.3.5 | 6.186  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF196) | △      | (CA-8) K3.1TS7 F30TS40IG5.3.5 | 8.187  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.XO |
| (TJF197) | ▽      | (CA-8) K3.1TS7 F30TS40IG5.3.5 | 10.192 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.YO |
| (TJF198) | ◻      | (CA-8) K3.1TS7 F30TS40IG5.3.5 | 12.168 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                               |        |       |         |        | SCALE                 | .0405     |       |

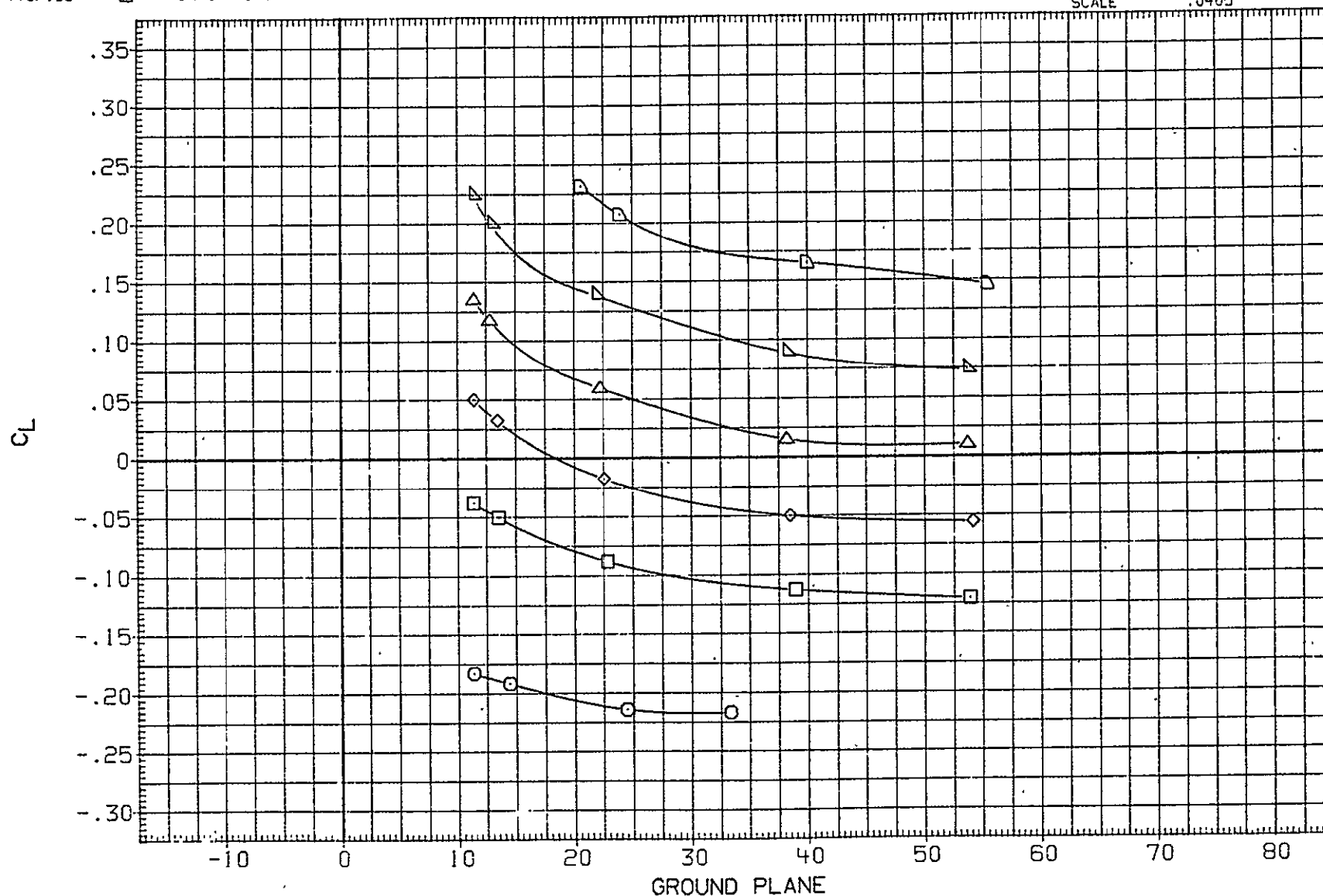


FIG 261 FERRY CON. IN GROUND PROXIMITY, HORIZ OFF, IORB=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A) MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF193) | ○      | (CA-8) K3.1TS7 F30TS40105.3.5 | .128   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF194) | ◇      | (CA-8) K3.1TS7 F30TS40105.3.5 | 4.126  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF195) | ◇      | (CA-8) K3.1TS7 F30TS40105.3.5 | 6.186  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF196) | △      | (CA-8) K3.1TS7 F30TS40105.3.5 | 8.187  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.XO |
| (TJF197) | △      | (CA-8) K3.1TS7 F30TS40105.3.5 | 10.192 | 6.000 | -11.700 | -5.000 | YMPP                  | .0000     | IN.YO |
| (TJF198) | △      | (CA-8) K3.1TS7 F30TS40105.3.5 | 12.168 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                               |        |       |         |        | SCALE                 | .0405     |       |

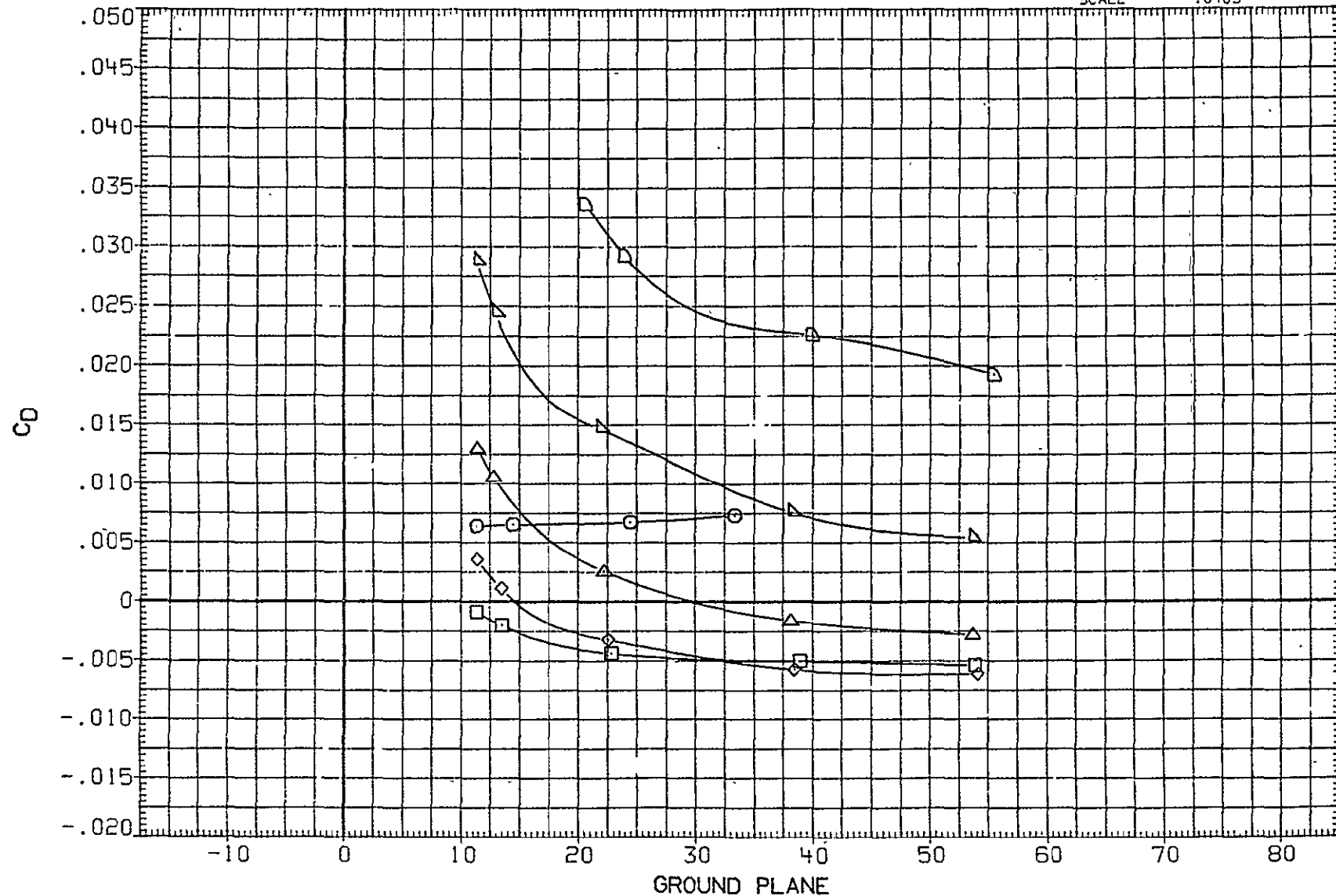


FIG 261 FERRY CON. IN GROUND PROXIMITY, HORIZ OFF, IORB=6, TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

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REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF193) | ○      | (CA-8) K3.1TS7 F30TS40IG5.3.5 | .128   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF194) | □      | (CA-8) K3.1TS7 F30TS40IG5.3.5 | 4.126  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF195) | ◇      | (CA-8) K3.1TS7 F30TS40IG5.3.5 | 6.186  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF196) | △      | (CA-8) K3.1TS7 F30TS40IG5.3.5 | 8.187  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF197) | ▽      | (CA-8) K3.1TS7 F30TS40IG5.3.5 | 10.192 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF198) | ▷      | (CA-8) K3.1TS7 F30TS40IG5.3.5 | 12.168 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                               |        |       |         |        | SCALE                 | .0405     |       |

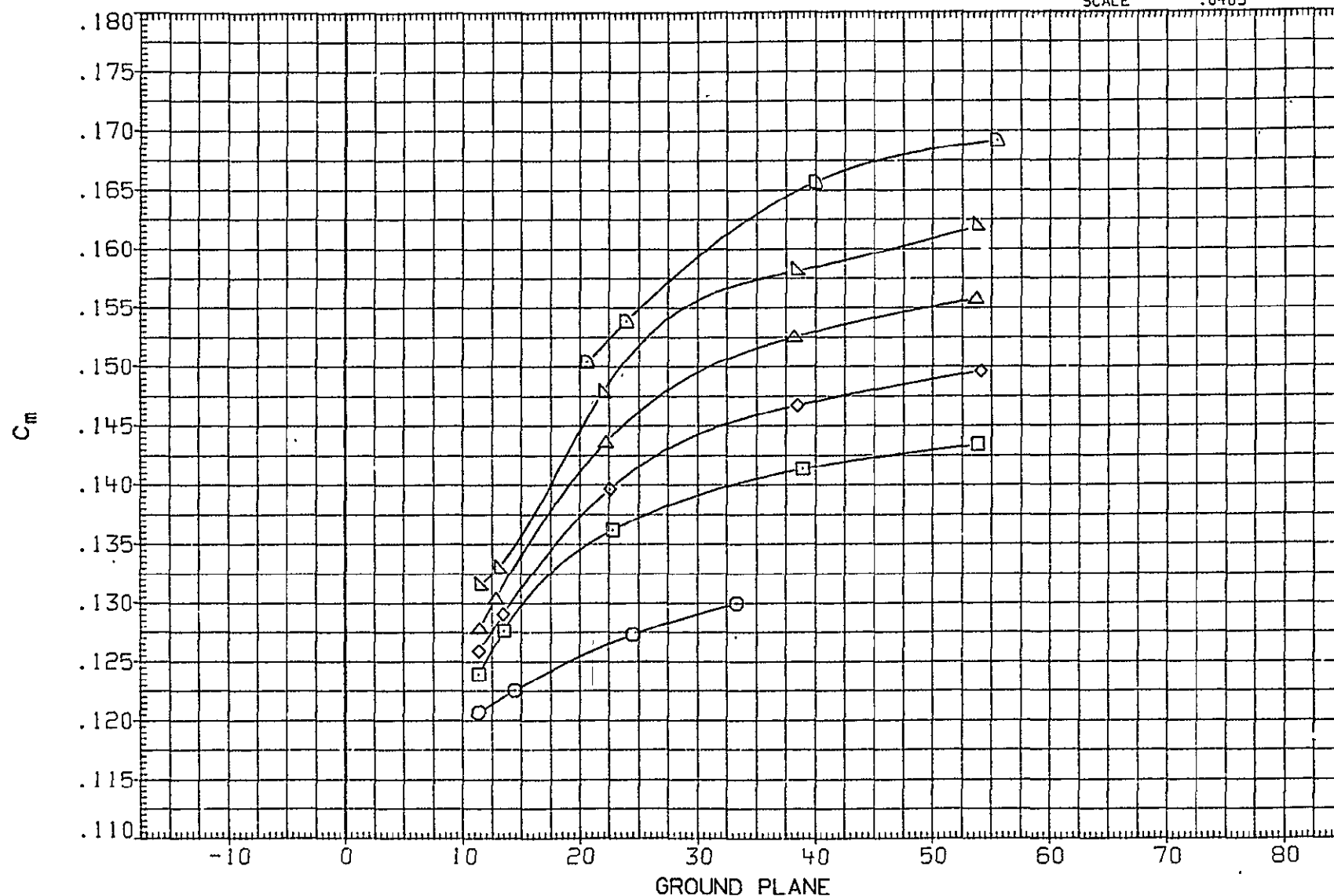


FIG 261 FERRY CON. IN GROUND PROXIMITY, HORIZ OFF, IORB=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF180) | □      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | .151   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF175) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 4.171  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF176) | △      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 6.173  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF177) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 8.173  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.XO |
| (TJF178) | △      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 10.137 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.YO |
| (TJF179) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 12.198 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

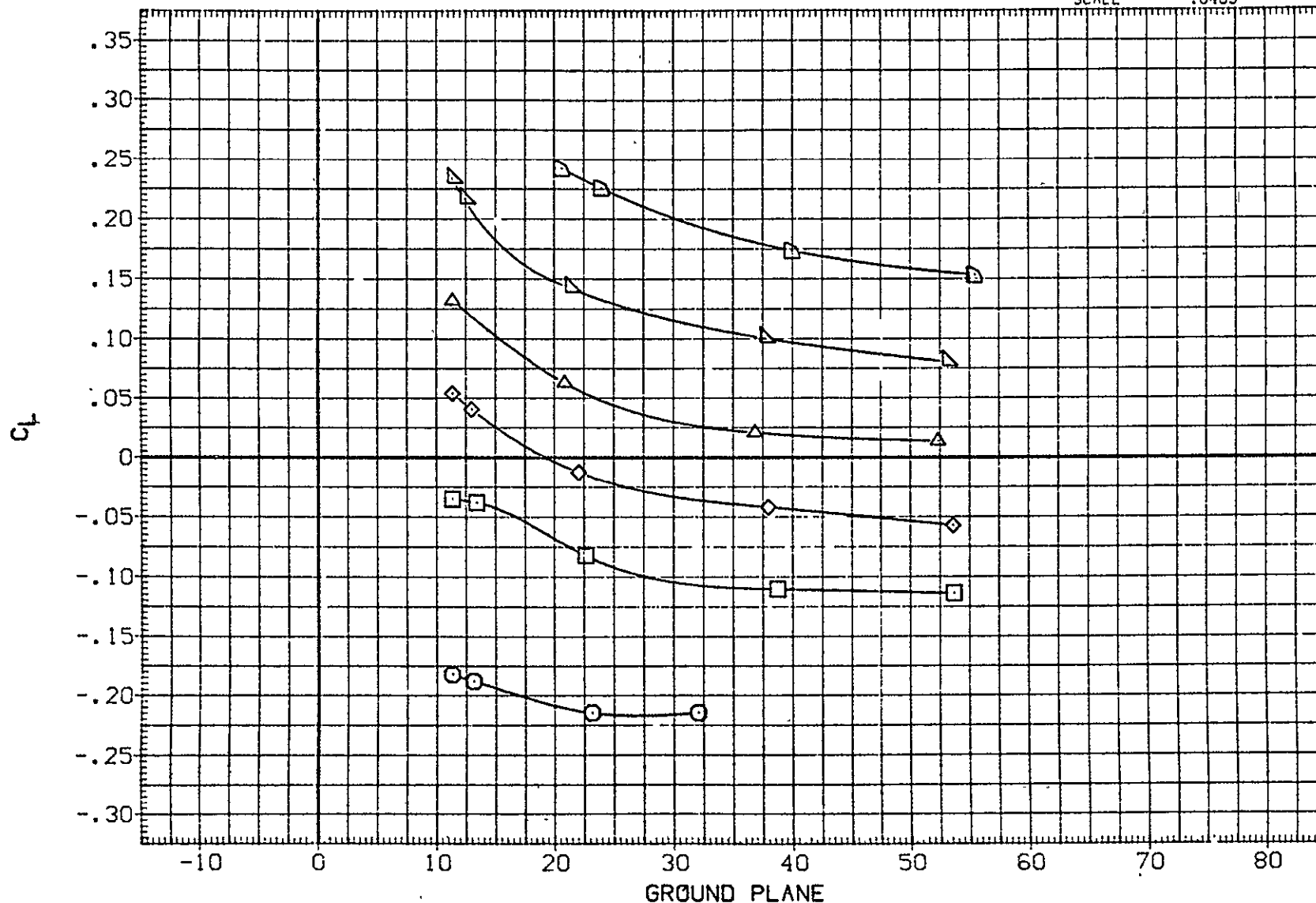


FIG 262 FERRY CON. IN GROUND PROXIMITY, STAB = 2, ELEVTR=-23, IORB=6, TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------------------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF180) | ○      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | .151               | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF175) | □      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 4.171              | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF176) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 6.173              | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF177) | △      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 8.173              | 6.000 | -11.700 | -3.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF178) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 10.137             | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF179) | ◊      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 12.198             | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |                    |       |         |        | SCALE                 | .0405     |       |

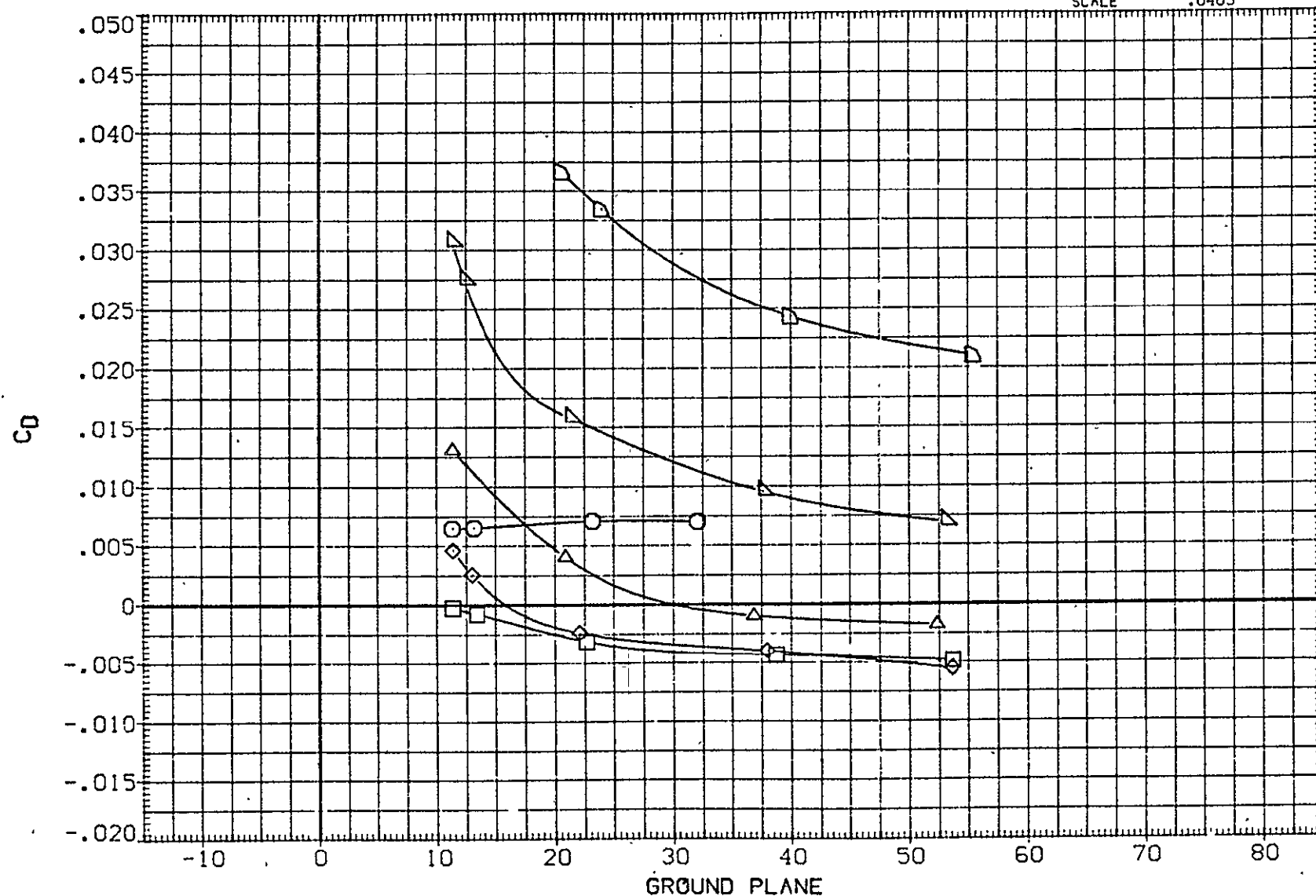


FIG 262 FERRY CON. IN GROUND PROXIMITY, STAB = 2. ELEVTR=-23. IORB=6. TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF180) | ○      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | .151   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF175) | □      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 4.171  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF176) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 6.173  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF177) | △      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 8.173  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF178) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 10.137 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF179) | ◁      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 12.198 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

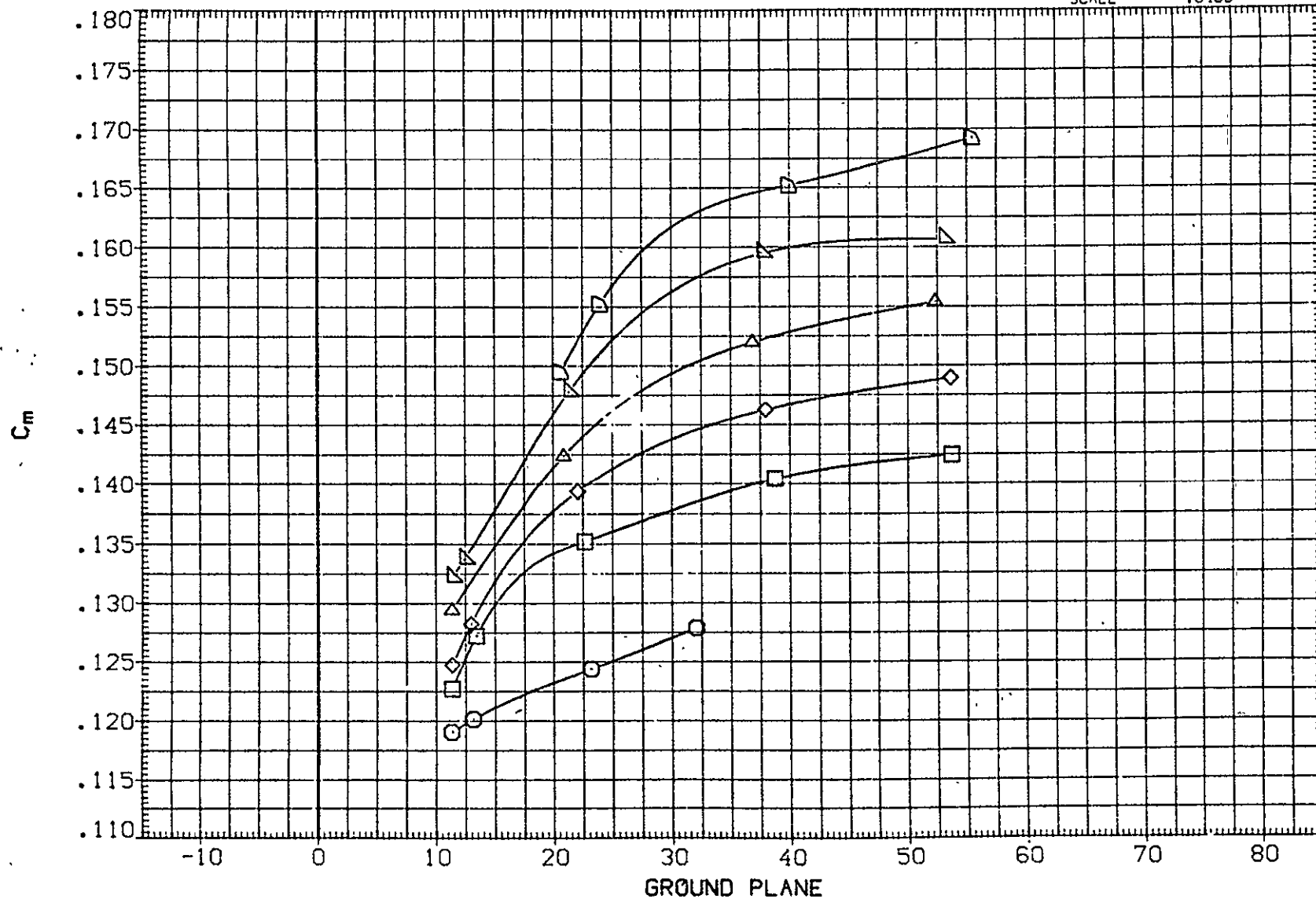


FIG 262 FERRY CON. IN GROUND PROXIMITY, STAB = 2, ELEVTR=-23, IORB=6, TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF181) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | .167   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF182) | □      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 4.137  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF183) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 6.180  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF184) | △      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 8.158  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.XO |
| (TJF185) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 10.175 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.YO |
| (TJF186) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 12.161 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

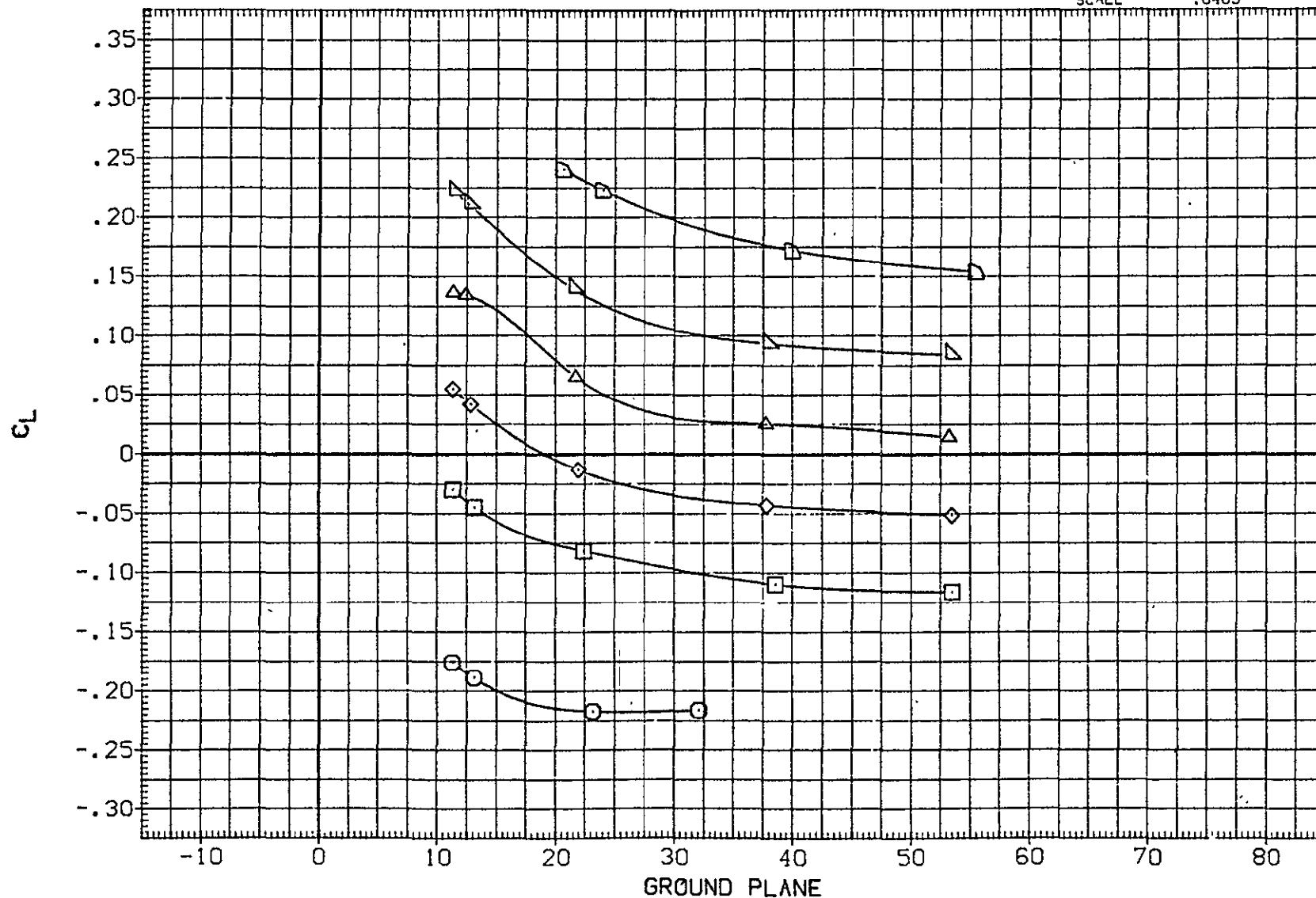


FIG 263 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | RDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF181) | □      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | .167   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50.FT  |
| (TJF182) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 4.137  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF183) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 6.180  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF184) | △      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 8.158  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF185) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 10.175 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF186) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 12.161 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

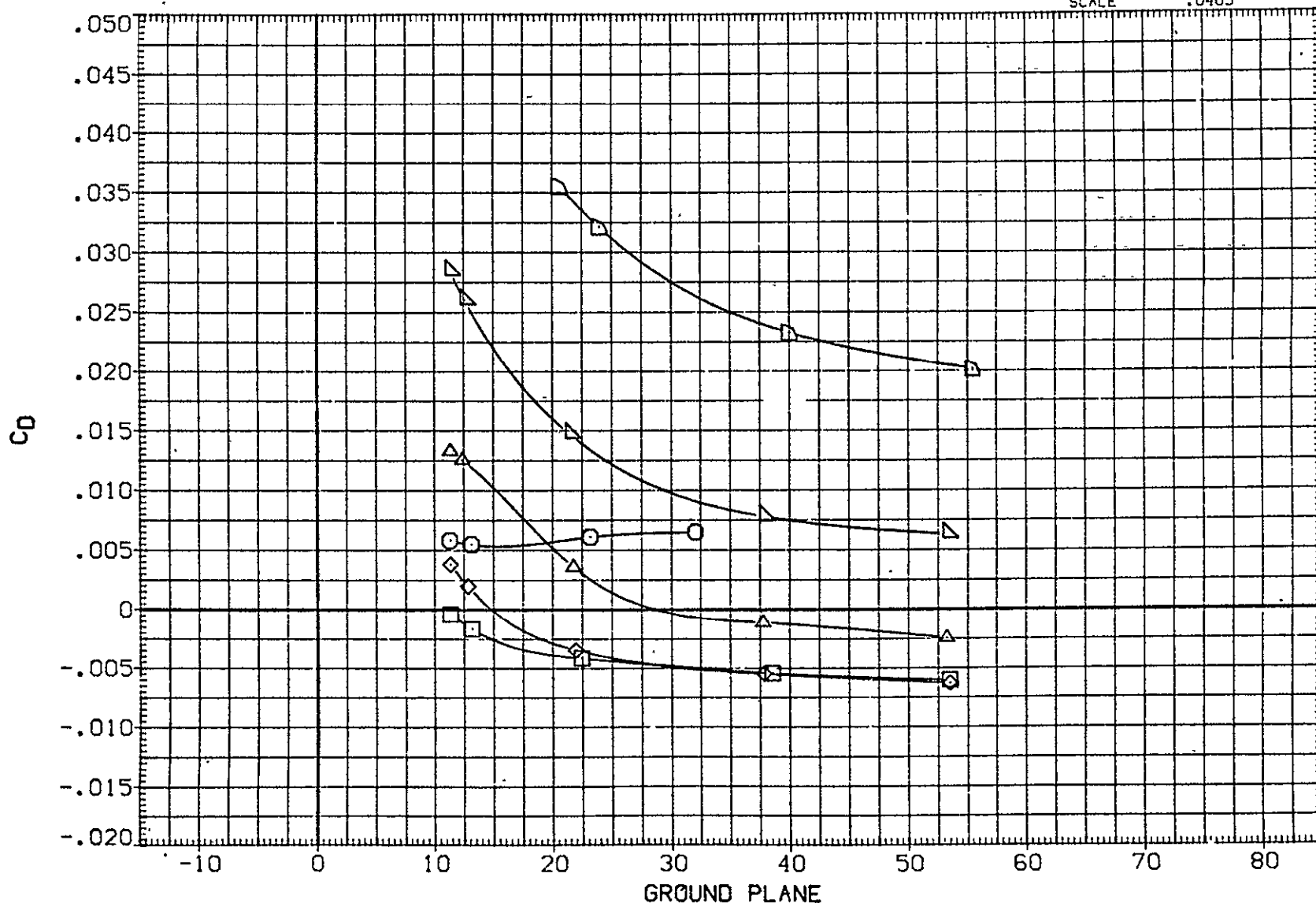


FIG 263 FERRY CON. IN GROUND PROXIMITY. STAB = 0. ELEVTR=-23. IORB=6. TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF181) | ○      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | .167   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF182) | □      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 4.137  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF183) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 6.180  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF184) | △      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 8.158  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.XO |
| (TJF185) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 10.175 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.YO |
| (TJF186) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 12.161 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |



FIG 263 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=6, TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF187) | □      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | .179   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF188) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 4.122  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF189) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 6.123  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF190) | △      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 8.153  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF191) | △      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 10.190 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF192) | △      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 12.151 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

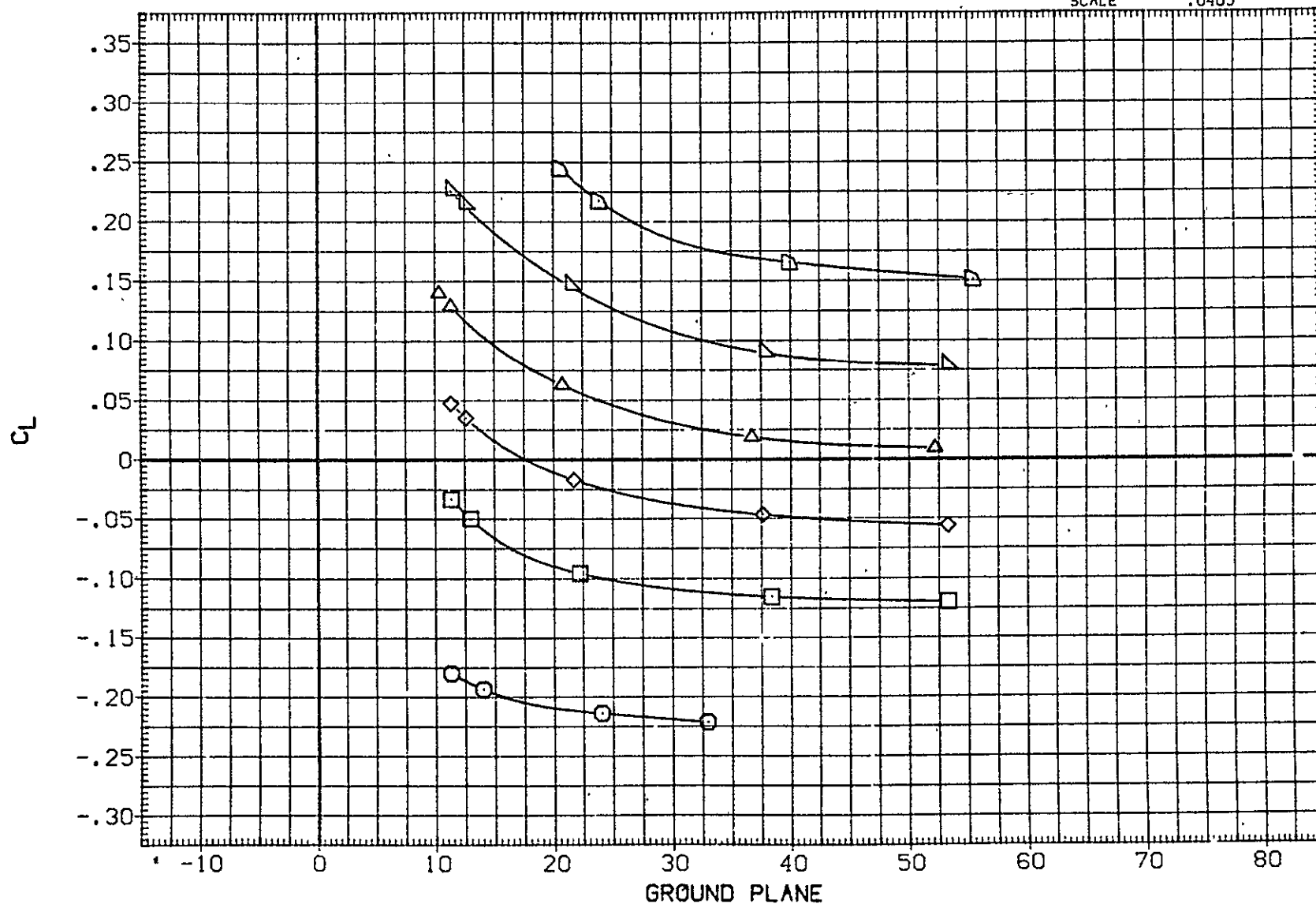


FIG 264 FERRY CON. IN GROUND PROXIMITY, STAB = -2, ELEVTR=-23, IORB=6. TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | IDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF187) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | .179   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF188) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 4.122  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF189) | △      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 6.123  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF190) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 8.153  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.XO |
| (TJF191) | □      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 10.190 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.YO |
| (TJF192) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 12.151 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

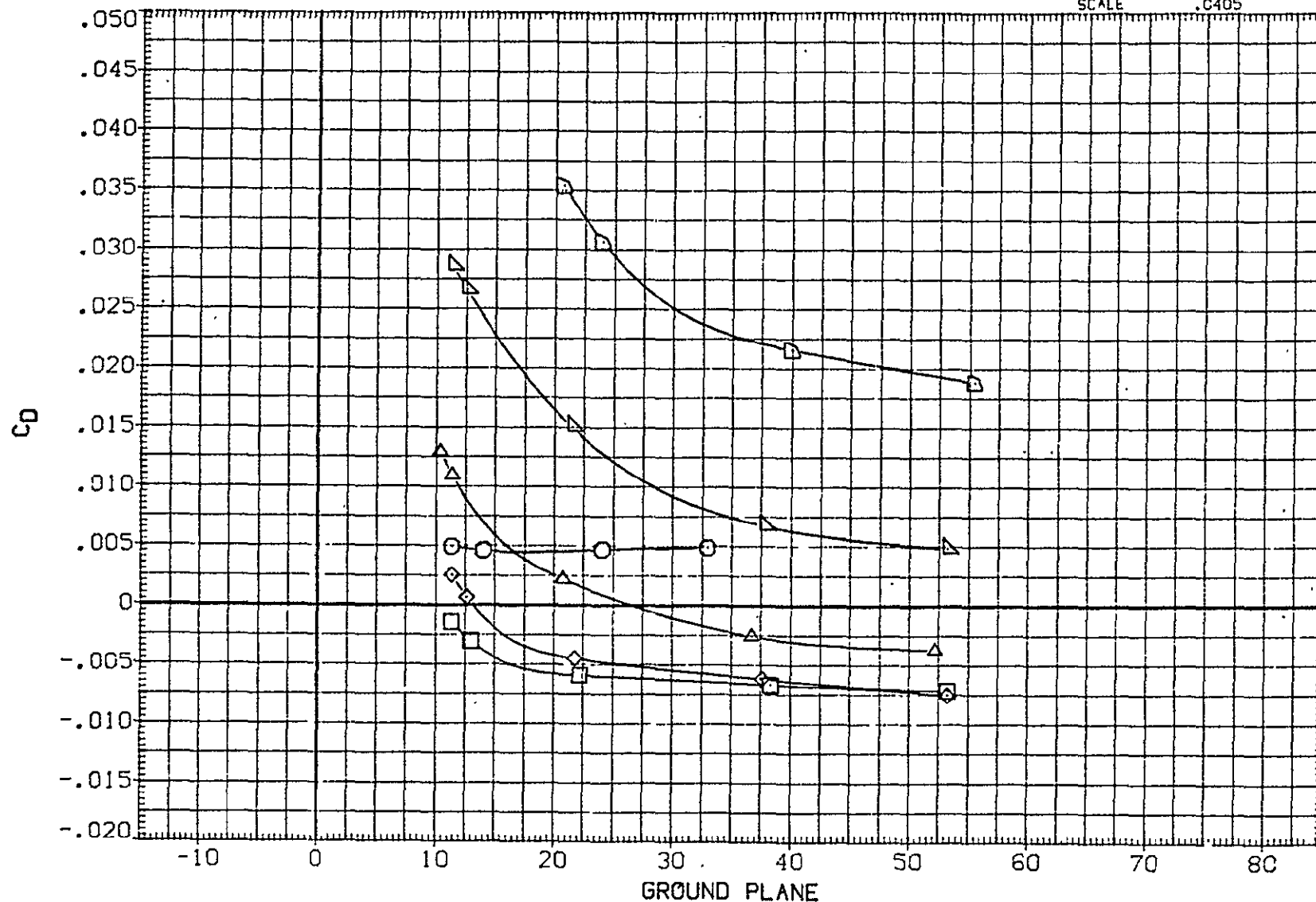


FIG 264 FERRY CON. IN GROUND PROXIMITY, STAB = -2, ELEVTR=-23, IORB=6, TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA W | I ORB | B DFLAP | E I EVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|---------|-------|---------|----------|-----------------------|-----------|-------|
| (TJF187) | ○      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | .179    | 6.000 | -11.700 | -5.000   | SREF                  | 2690.0000 | SQ.FT |
| (TJF188) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 4.122   | 6.000 | -11.700 | -5.000   | LREF                  | 474.8100  | IN.   |
| (TJF189) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 6.123   | 6.000 | -11.700 | -5.000   | BREF                  | 936.6800  | IN.   |
| (TJF190) | △      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 8.153   | 6.000 | -11.700 | -5.000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF191) | △      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 10.190  | 6.000 | -11.700 | -5.000   | YMRP                  | .0000     | IN.Y0 |
| (TJF192) | △      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 12.151  | 6.000 | -11.700 | -5.000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |         |       |         |          | SCALE                 | .0405     |       |

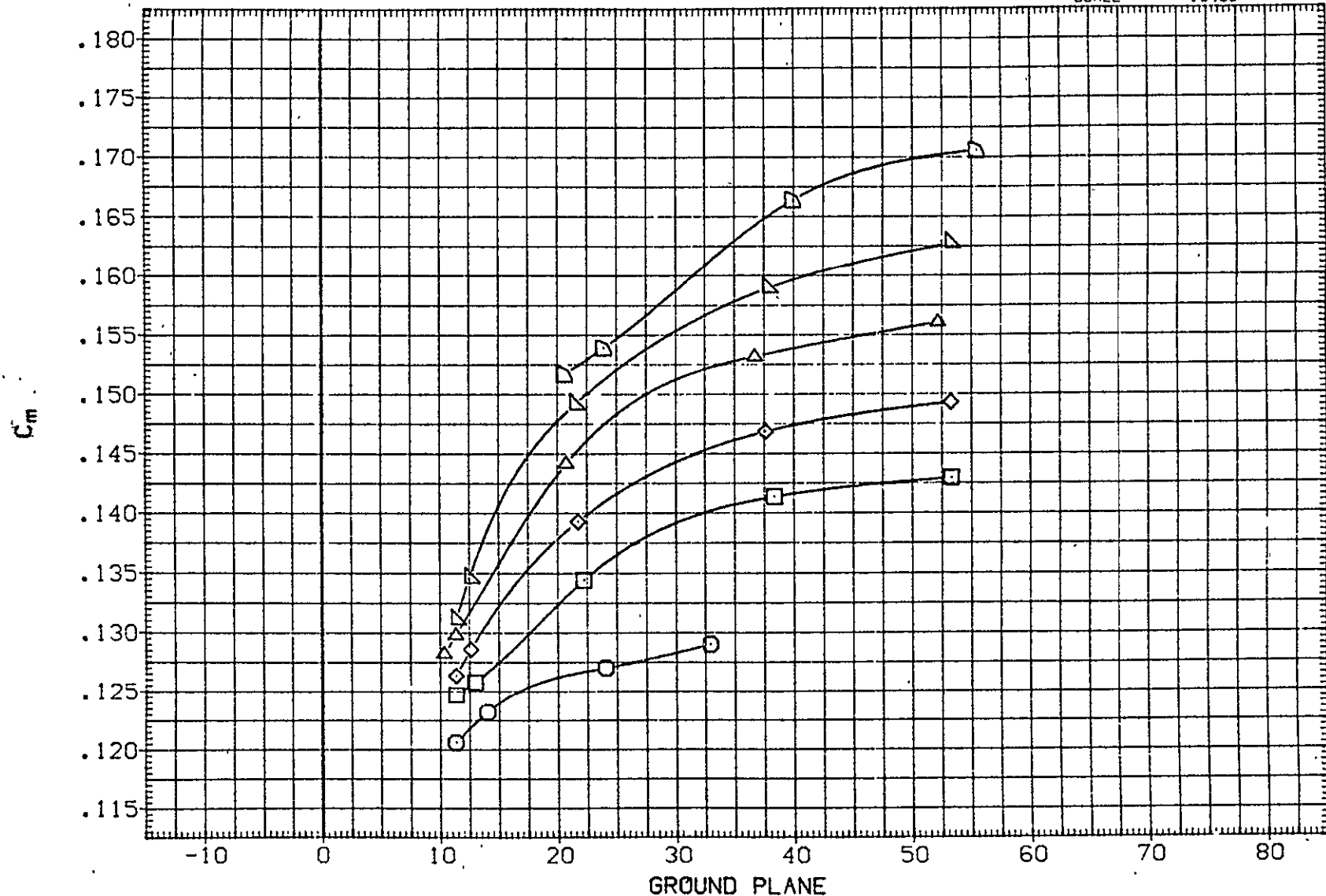


FIG 264 FERRY CON. IN GROUND PROXIMITY, STAB = -2, ELEVTR=-23, I ORB=6, TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------------------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF199) | □      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | .171               | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF200) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 4.098              | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF201) | △      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 6.137              | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF202) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 8.191              | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.XO |
| (TJF203) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 10.129             | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.YO |
| (TJF204) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 12.192             | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                                     |                    |       |         |        | SCALE                 | .0405     |       |

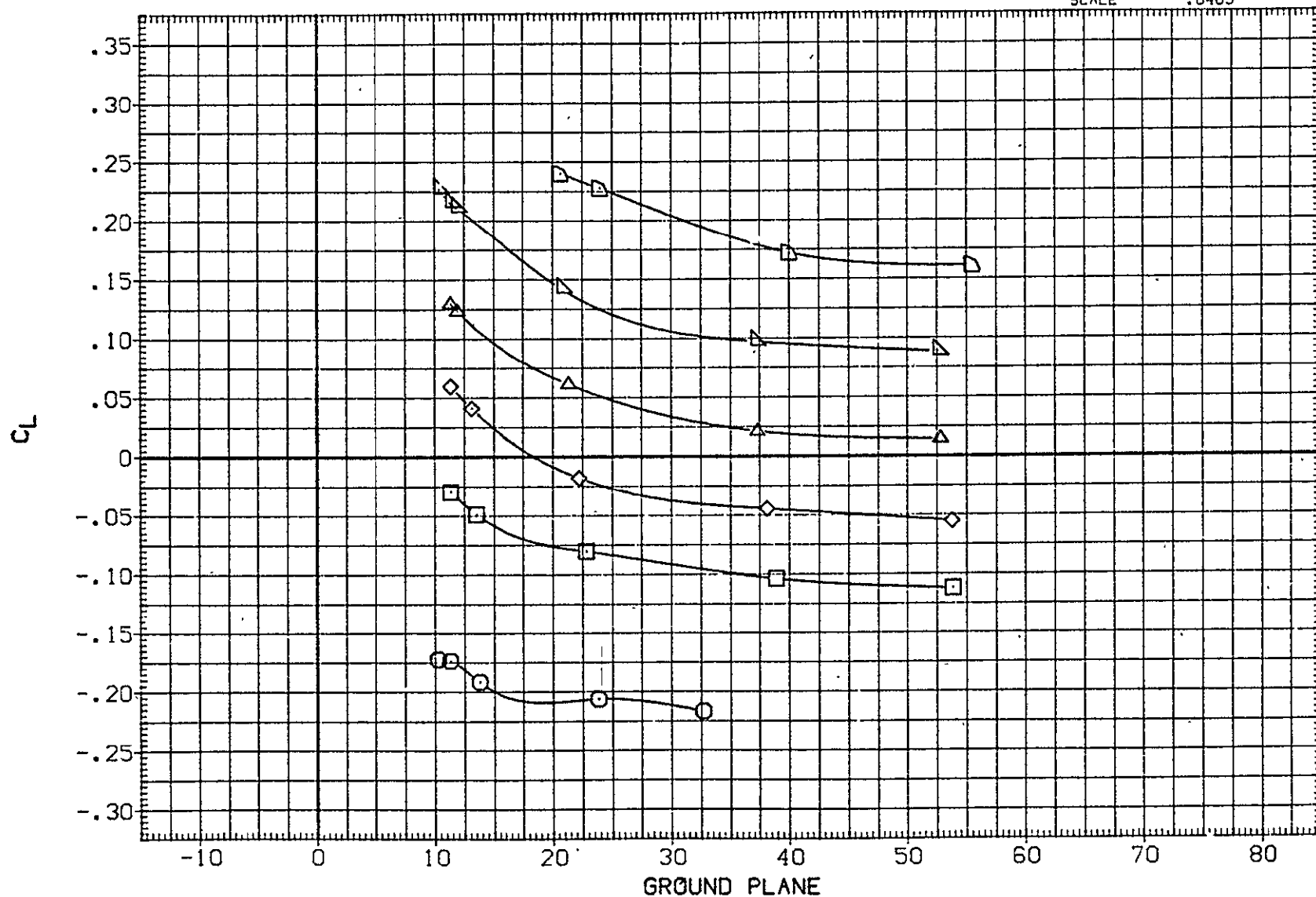


FIG 265 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR= 17, IORB=6, TC ON ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF199) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | .171   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF200) | □      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 4.098  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF201) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 6.137  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF202) | △      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 8.191  | 6.000 | -11.700 | -5.000 | XM RP                 | 1109.0000 | IN.X0 |
| (TJF203) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 10.129 | 6.000 | -11.700 | -5.000 | YM RP                 | .0000     | IN.Y0 |
| (TJF204) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 12.192 | 6.000 | -11.700 | -5.000 | ZM RP                 | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

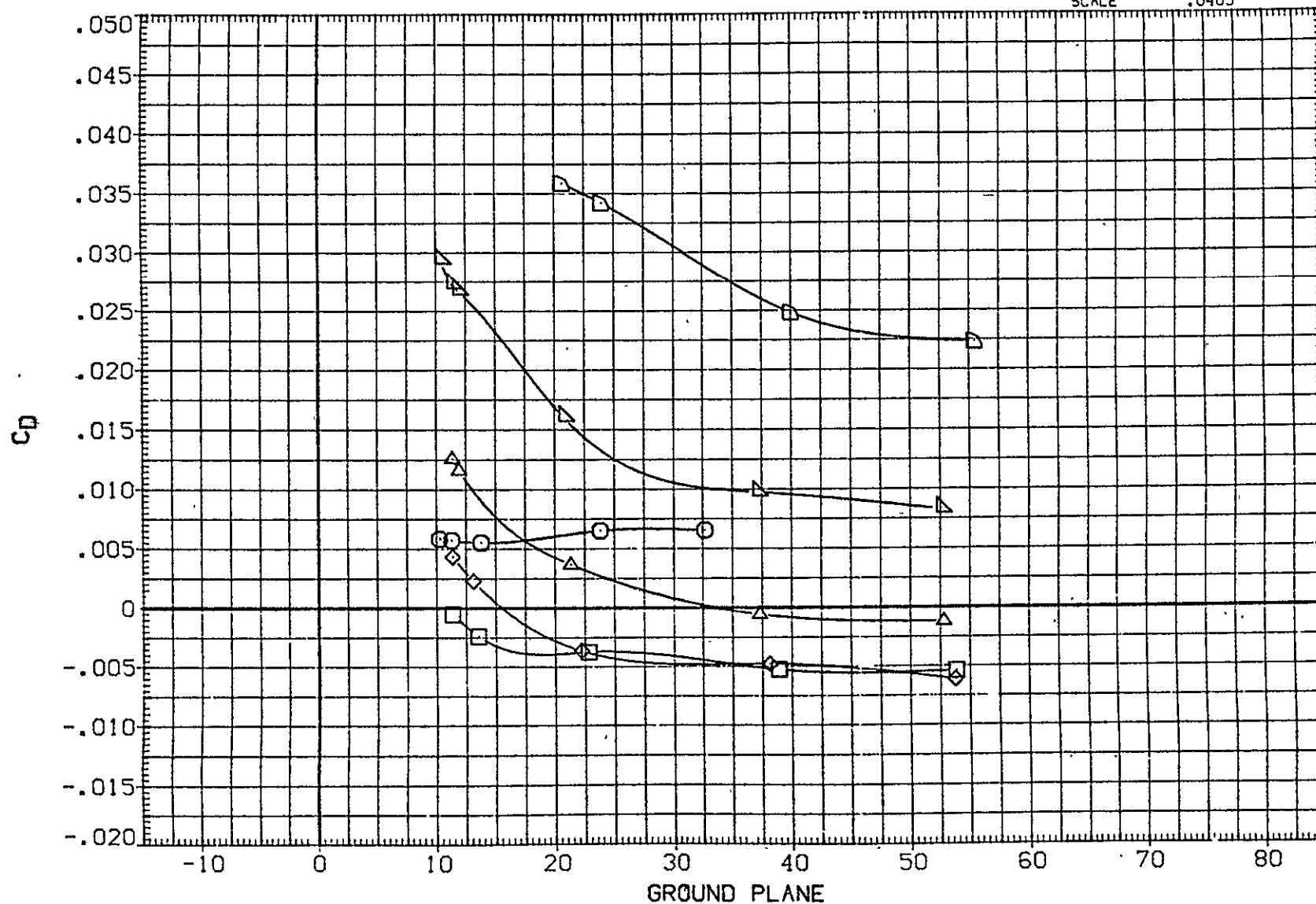


FIG 265 FERRY CON. IN GROUND PROXIMITY. STAB = 0. ELEVTR= 17. IORB=6. TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------------------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF199) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | .171               | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF200) | □      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 4.098              | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF201) | △      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 6.137              | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF202) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 8.191              | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF203) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 10.129             | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF204) | ◊      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 12.192             | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |                    |       |         |        | SCALE                 | .0405     |        |

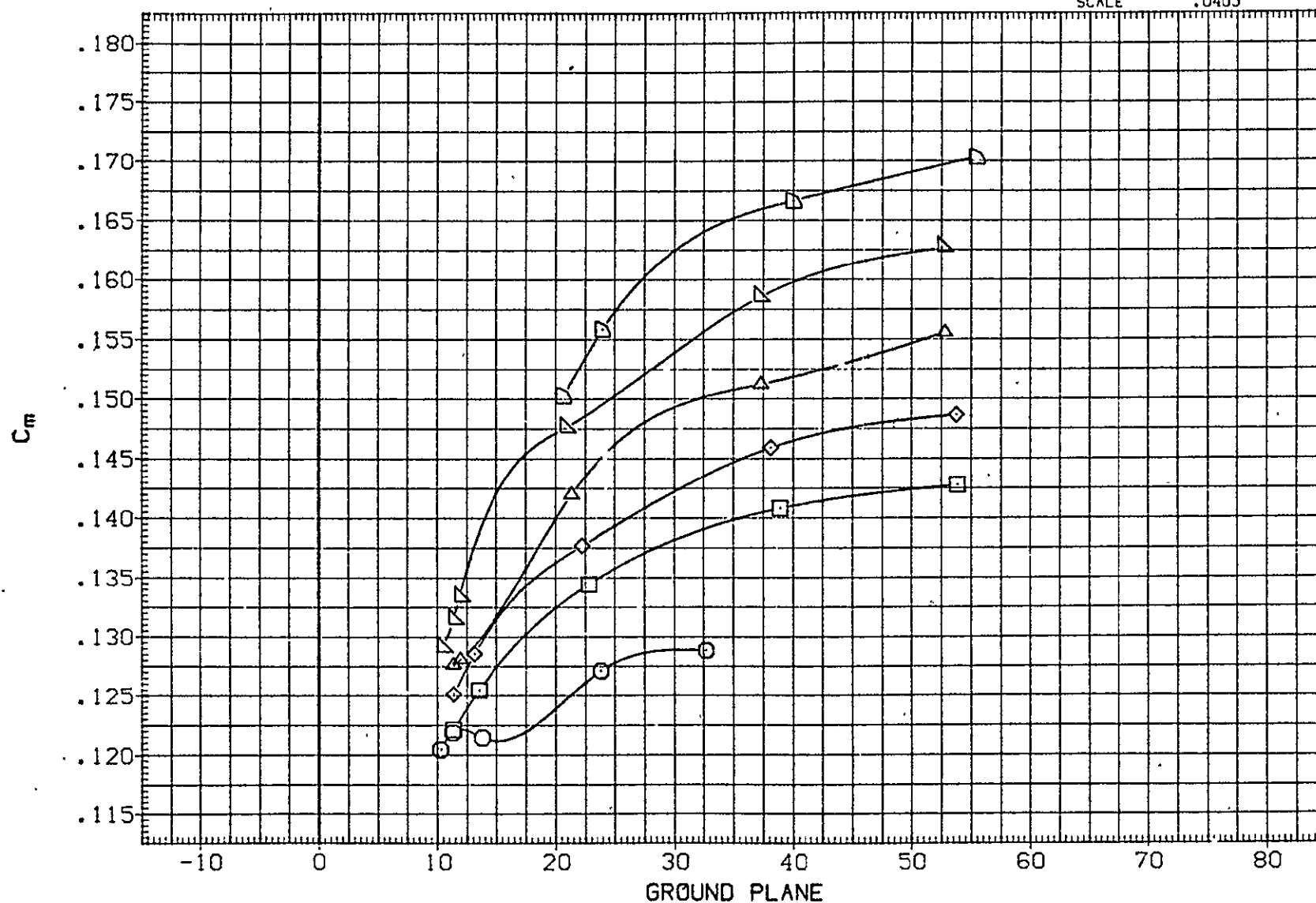


FIG 265 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR= 17, IORB=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | ICRB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF169) | ○      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | .183   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF170) | □      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 4.177  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF171) | △      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 6.229  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF172) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 8.146  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF173) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 10.106 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF174) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 12.126 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

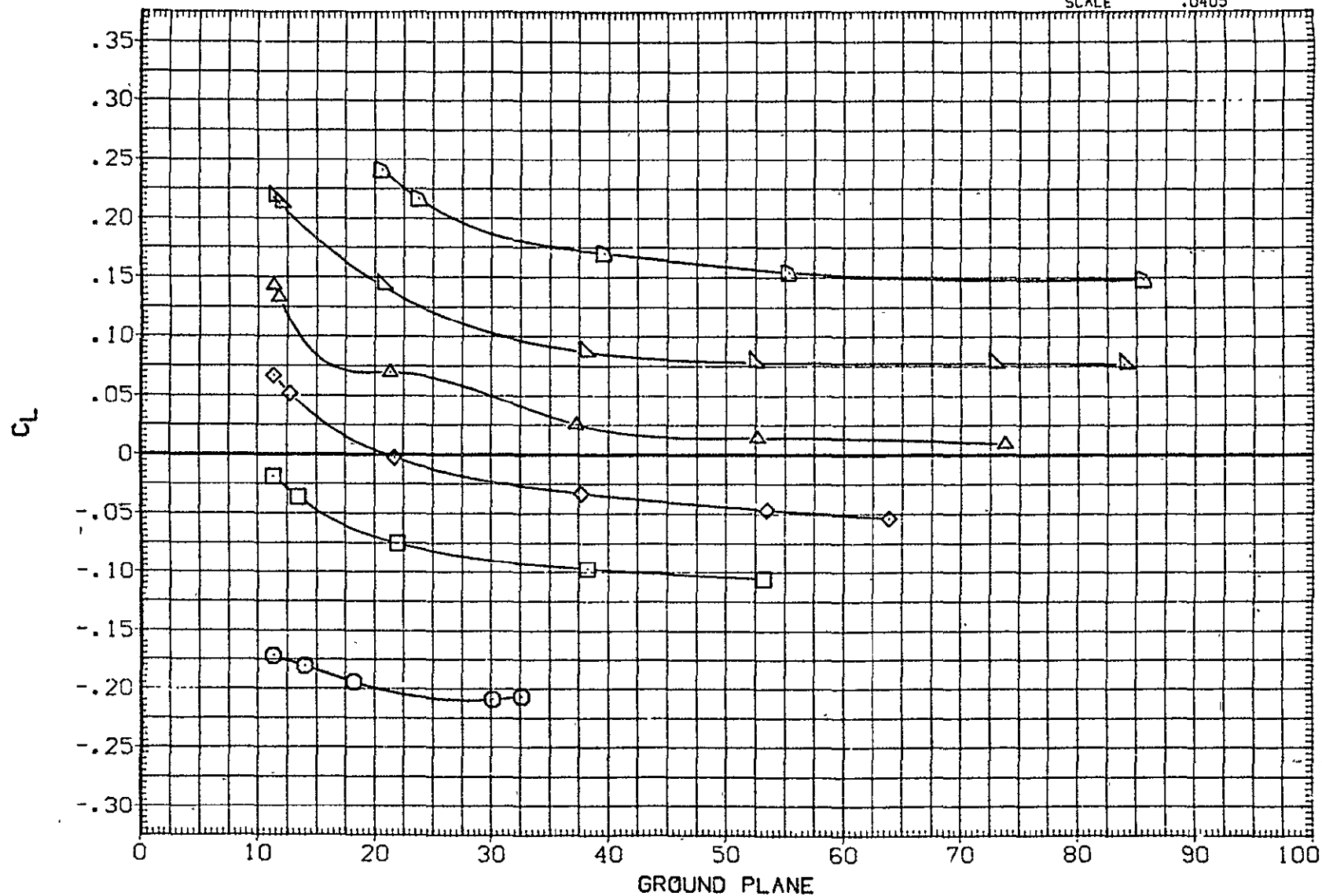


FIG 266 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, ICRB=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BOFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF169) | ○      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | .183   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF170) | □      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 4.177  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF171) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 6.229  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF172) | △      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 8.146  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.XO |
| (TJF173) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 10.106 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.YO |
| (TJF174) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 12.126 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

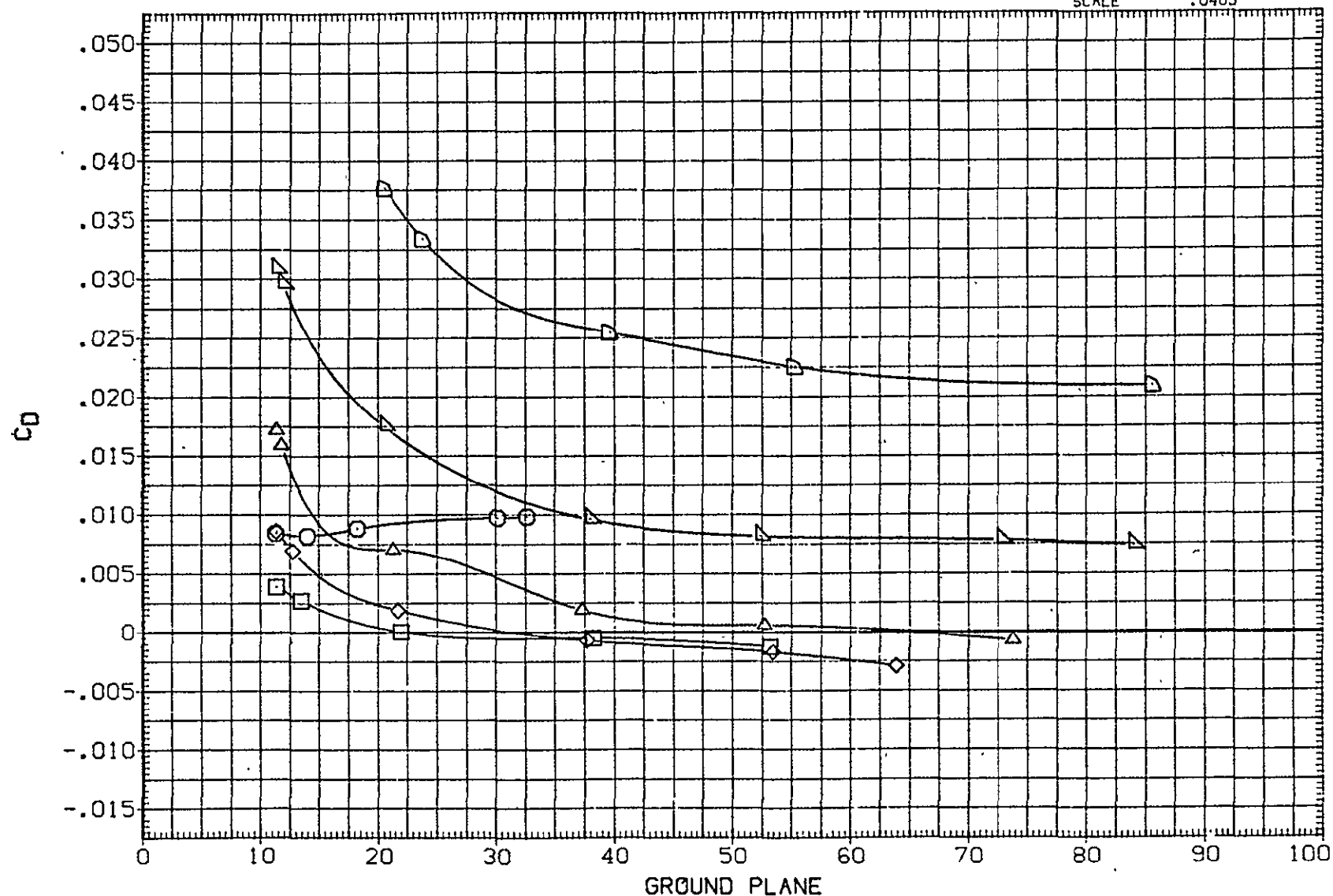


FIG 266 FERRY CON. IN GROUND PROXIMITY. STAB = 0. ELEVTR=-23. IORB=6. TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF169) | ○      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | .183   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF170) | □      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 4.177  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF171) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 6.229  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF172) | △      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 8.146  | 6.000 | -11.700 | -5.000 | XMPP                  | 1109.0000 | IN.X0 |
| (TJF173) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 10.106 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF174) | ▷      | (CA-8) K3.1TS7H15.6.1F30TS401G5.3.5 | 12.126 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |



FIG 266 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=6, TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA <sub>W</sub> | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------|--------------------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF404) | ○      | (CA-8) K2.1TS7 F10TS401G5.3.5 | .144               | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | SQ.FT  |
| (TJF405) | □      | (CA-8) K2.1TS7 F10TS401G5.3.5 | 4.201              | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.    |
| (TJF406) | ×      | (CA-8) K2.1TS7 F10TS401G5.3.5 | 6.129              | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.    |
| (TJF407) | △      | (CA-8) K2.1TS7 F10TS401G5.3.5 | 8.129              | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN. X0 |
| (TJF408) | ▽      | (CA-8) K2.1TS7 F10TS401G5.3.5 | 10.123             | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN. Y0 |
| (TJF409) | ◇      | (CA-8) K2.1TS7 F10TS401G5.3.5 | 12.202             | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                               |                    |       |         |        | SCALE                 | .0405     |        |

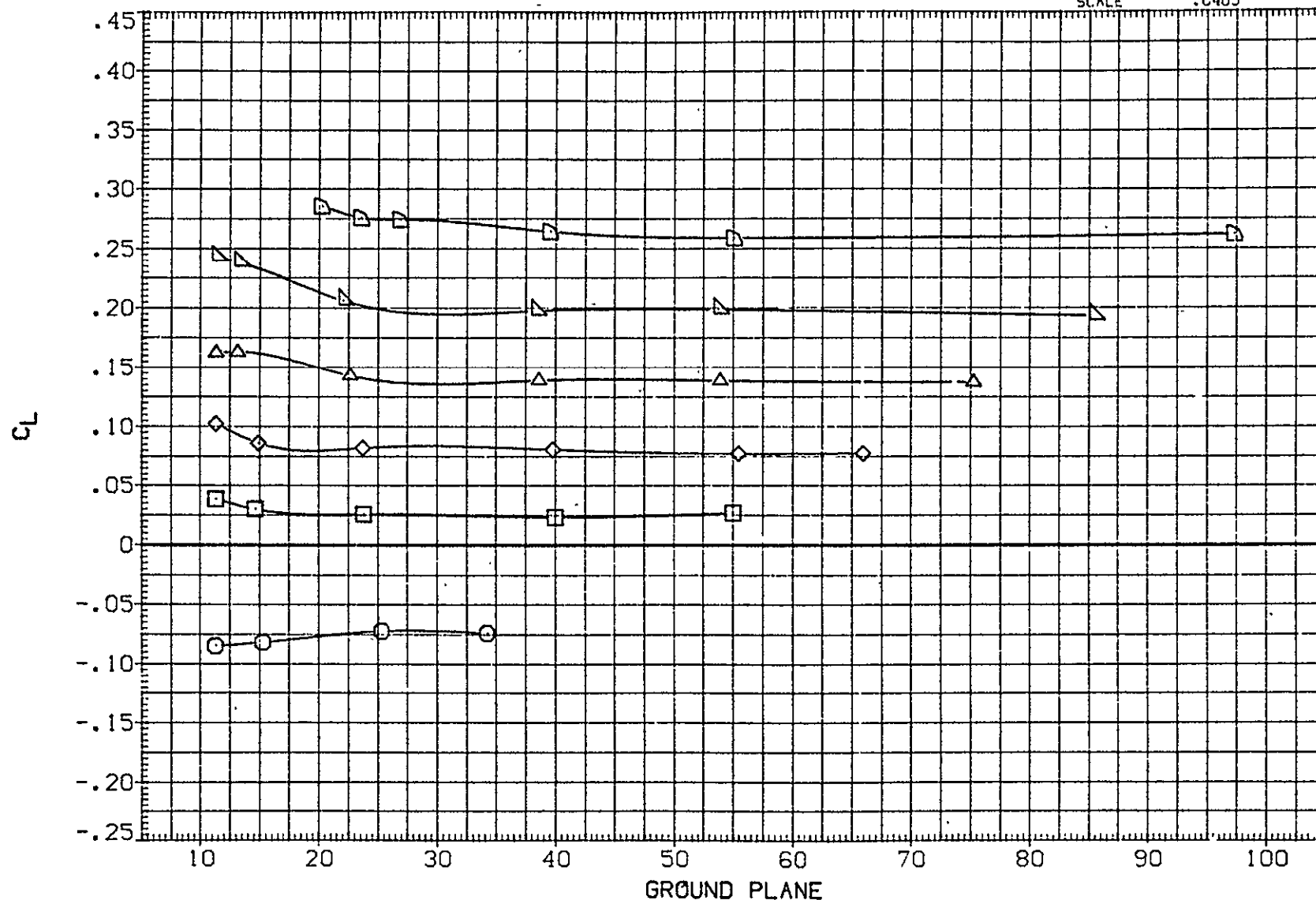


FIG 267 FERRY CON. IN GROUND PROXIMITY, HORIZ OFF FLAPS 10 IORB=3. TC ON  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION  | DESCRIPTION    | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|----------------|----------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF404) | ○      | (CA-8) K2.1TS7 | F10TS40165.3.5 | .144   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50.FT |
| (TJF405) | □      | (CA-8) K2.1TS7 | F10TS40165.3.5 | 4.201  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF406) | ◇      | (CA-8) K2.1TS7 | F10TS40165.3.5 | 6.129  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF407) | △      | (CA-8) K2.1TS7 | F10TS40165.3.5 | 8.129  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF408) | ▽      | (CA-8) K2.1TS7 | F10TS40165.3.5 | 10.123 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF409) | ◻      | (CA-8) K2.1TS7 | F10TS40165.3.5 | 12.202 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                |                |        |       |         |        | SCALE                 | .0405     |       |

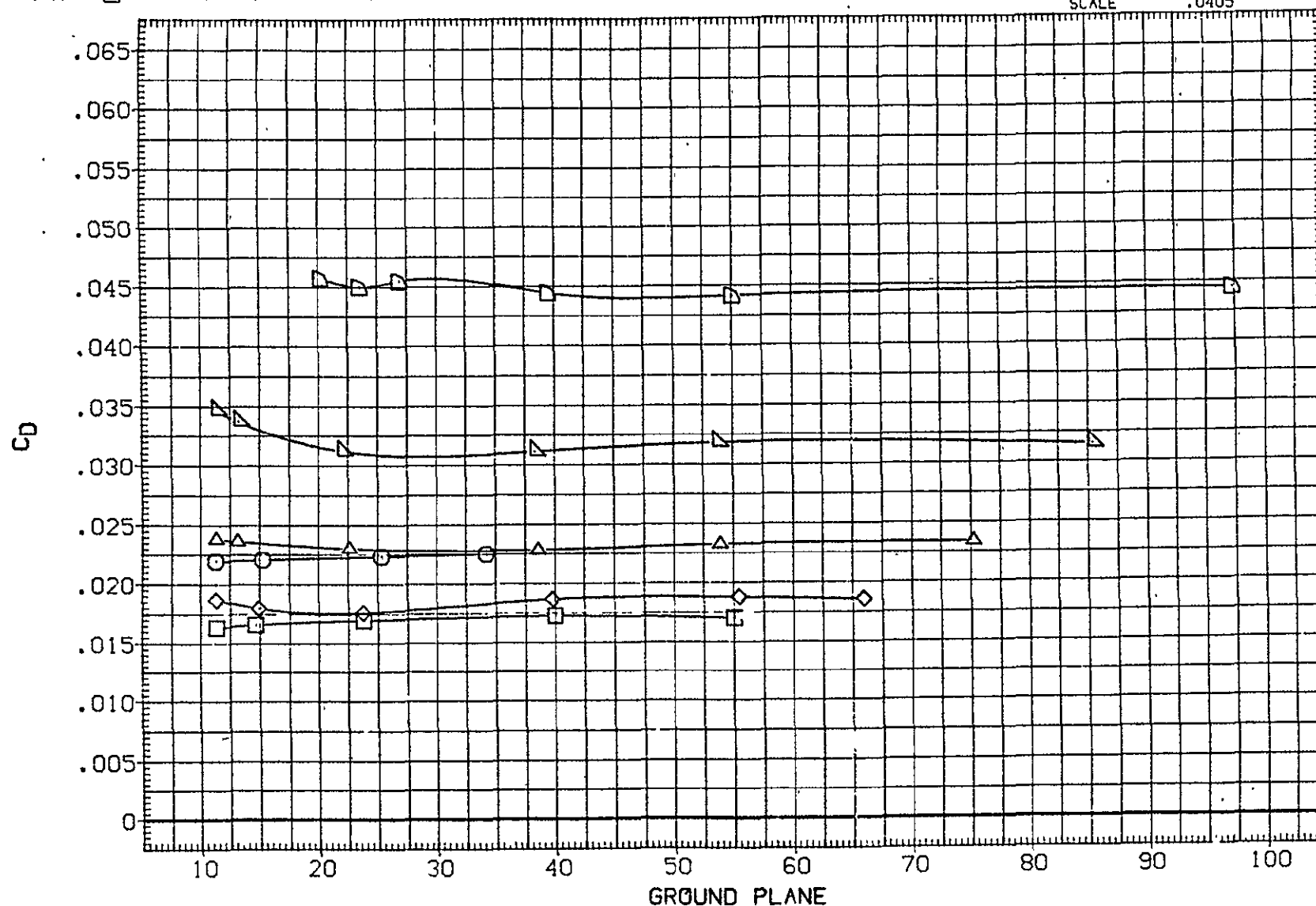


FIG 267 FERRY CON. IN GROUND PROXIMITY, HORIZ OFF FLAPS 10 IORB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF404) | ○      | (CA-8) K2.1TS7 FIOTS401G5.3.5 | .144   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | SQ.FT |
| (TJF405) | □      | (CA-8) K2.1TS7 FIOTS401G5.3.5 | 4.201  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF406) | ◇      | (CA-8) K2.1TS7 FIOTS401G5.3.5 | 6.129  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF407) | △      | (CA-8) K2.1TS7 FIOTS401G5.3.5 | 8.129  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.XO |
| (TJF408) | ▽      | (CA-8) K2.1TS7 FIOTS401G5.3.5 | 10.123 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.YO |
| (TJF409) | ◻      | (CA-8) K2.1TS7 FIOTS401G5.3.5 | 12.202 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                               |        |       |         |        | SCALE                 | .0405     |       |

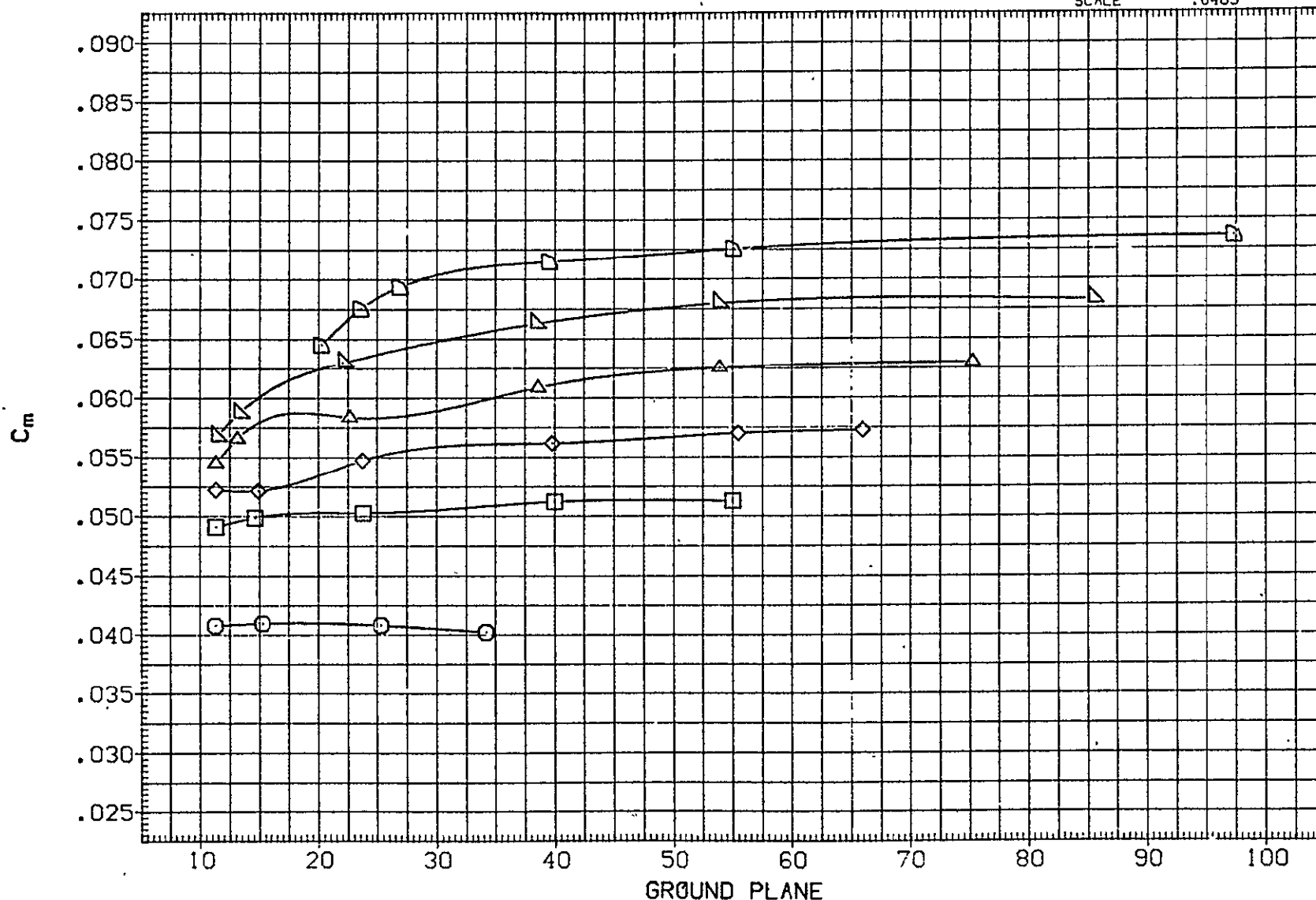


FIG 267 FERRY CON. IN GROUND PROXIMITY, HORIZ OFF FLAPS 10 IORB=3. TC ON  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | ICRB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF386) | ○      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | .144   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50.FT |
| (TJF387) | □      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | 4.121  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF388) | ◇      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | 6.127  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF389) | △      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | 8.161  | 3.000 | -11.700 | .000   | XMRF                  | 1109.0000 | IN.XO |
| (TJF390) | ▽      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | 10.166 | 3.000 | -11.700 | .000   | YMRF                  | .0000     | IN.YO |
| (TJF391) | ◻      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | 12.170 | 3.000 | -11.700 | .000   | ZMRF                  | 375.0000  | IN.ZO |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

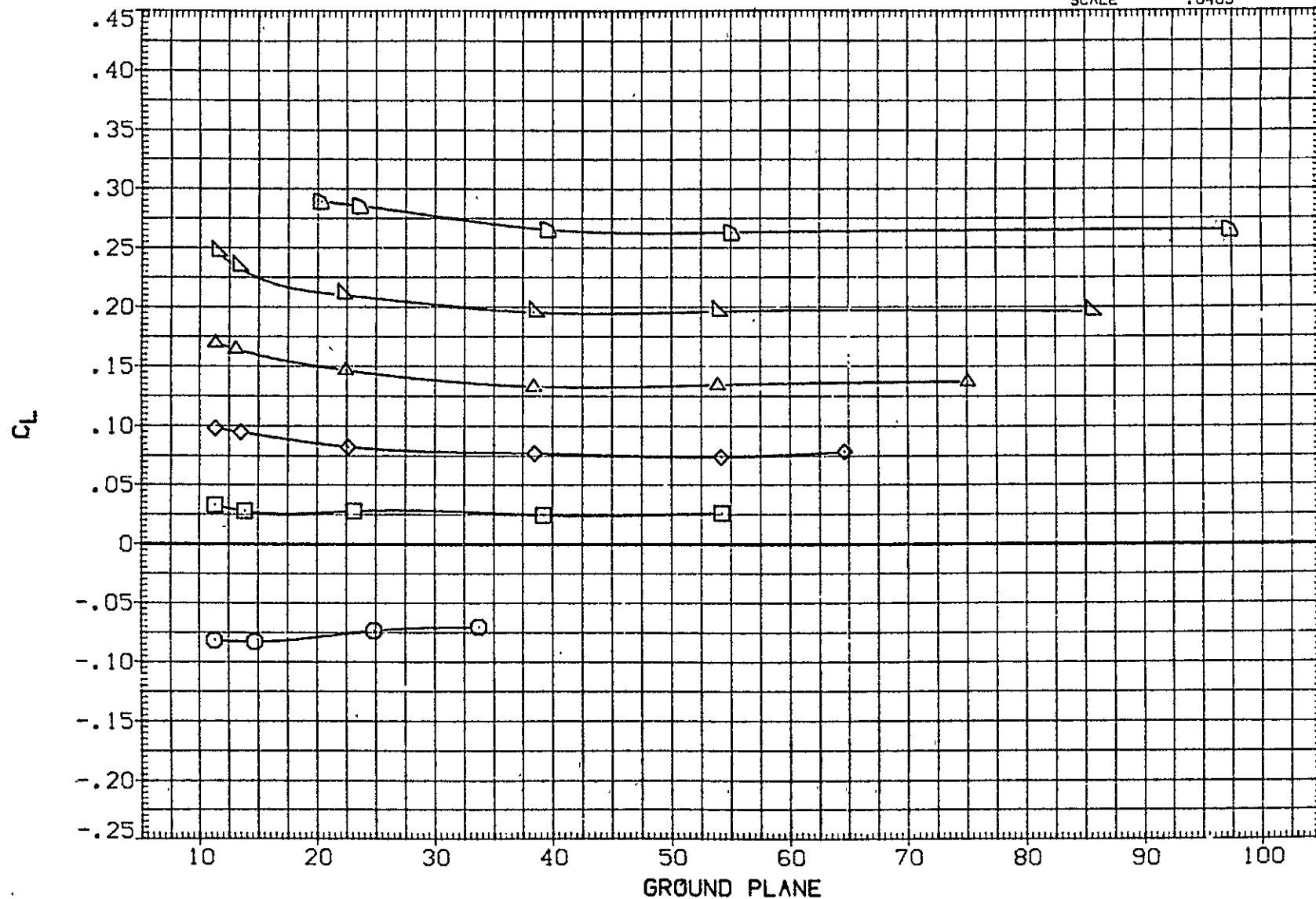


FIG 268 FERRY CON. IN GROUND PROXIMITY, STAB = 2 FLAPS 10 ICRB=3. TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------------------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF386) | □      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | .144               | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50. FT |
| (TJF387) | □      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 4.121              | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.    |
| (TJF388) | ◇      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 6.127              | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.    |
| (TJF389) | △      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 8.161              | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN. X0 |
| (TJF390) | △      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 10.166             | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN. Y0 |
| (TJF391) | △      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 12.170             | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |                    |       |         |        | SCALE                 | .0405     |        |

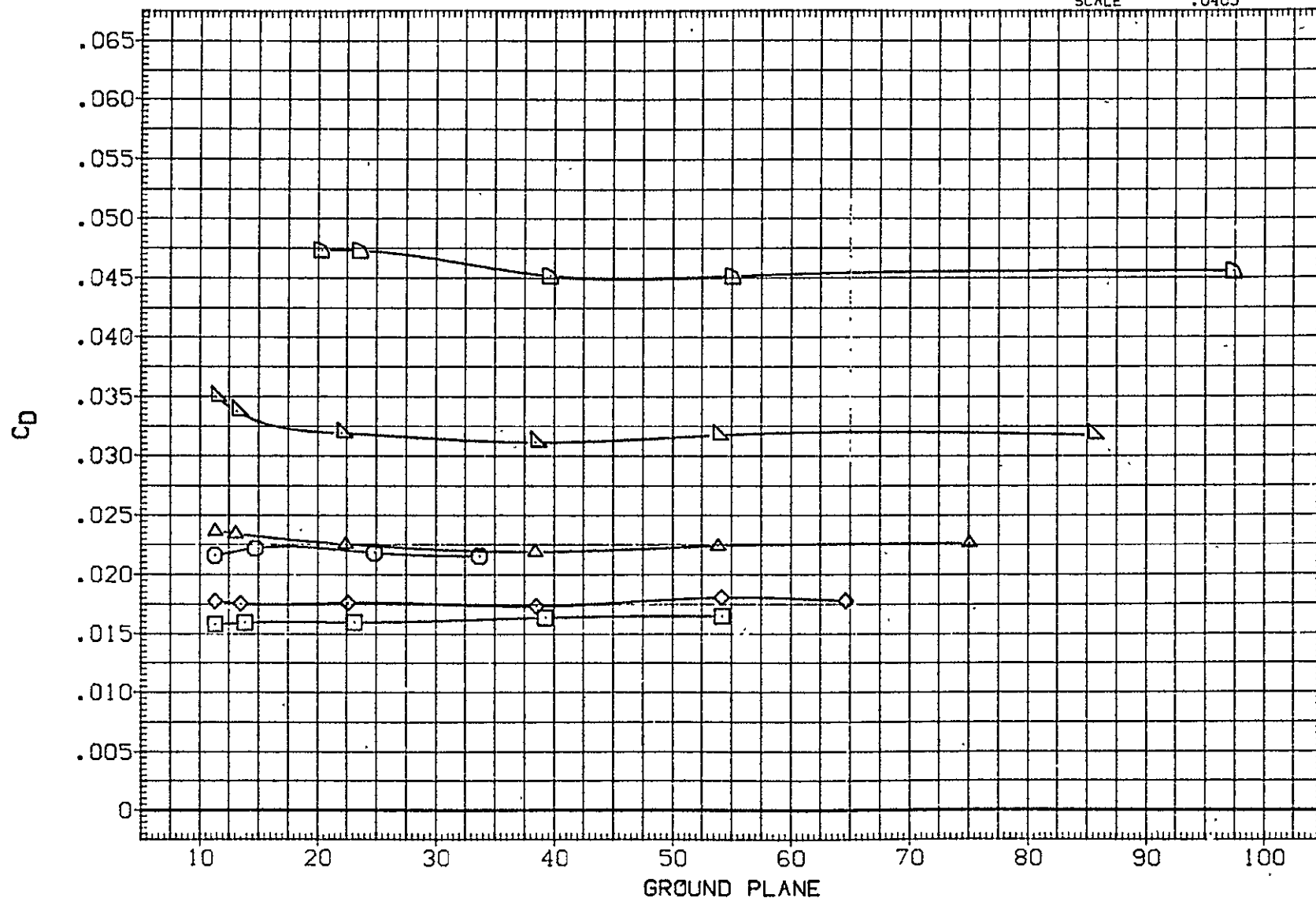


FIG 268 FERRY CON. IN GROUND PROXIMITY. STAB = 2 FLAPS 10 IORB=3. TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF386) | □      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | .144   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50.FT |
| (TJF387) | ◇      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 4.121  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF388) | ◇      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 6.127  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF389) | △      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 8.161  | 3.000 | -11.700 | .000   | XMRF                  | 1109.0000 | IN.X0 |
| (TJF390) | △      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 10.166 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF391) | △      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 12.170 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

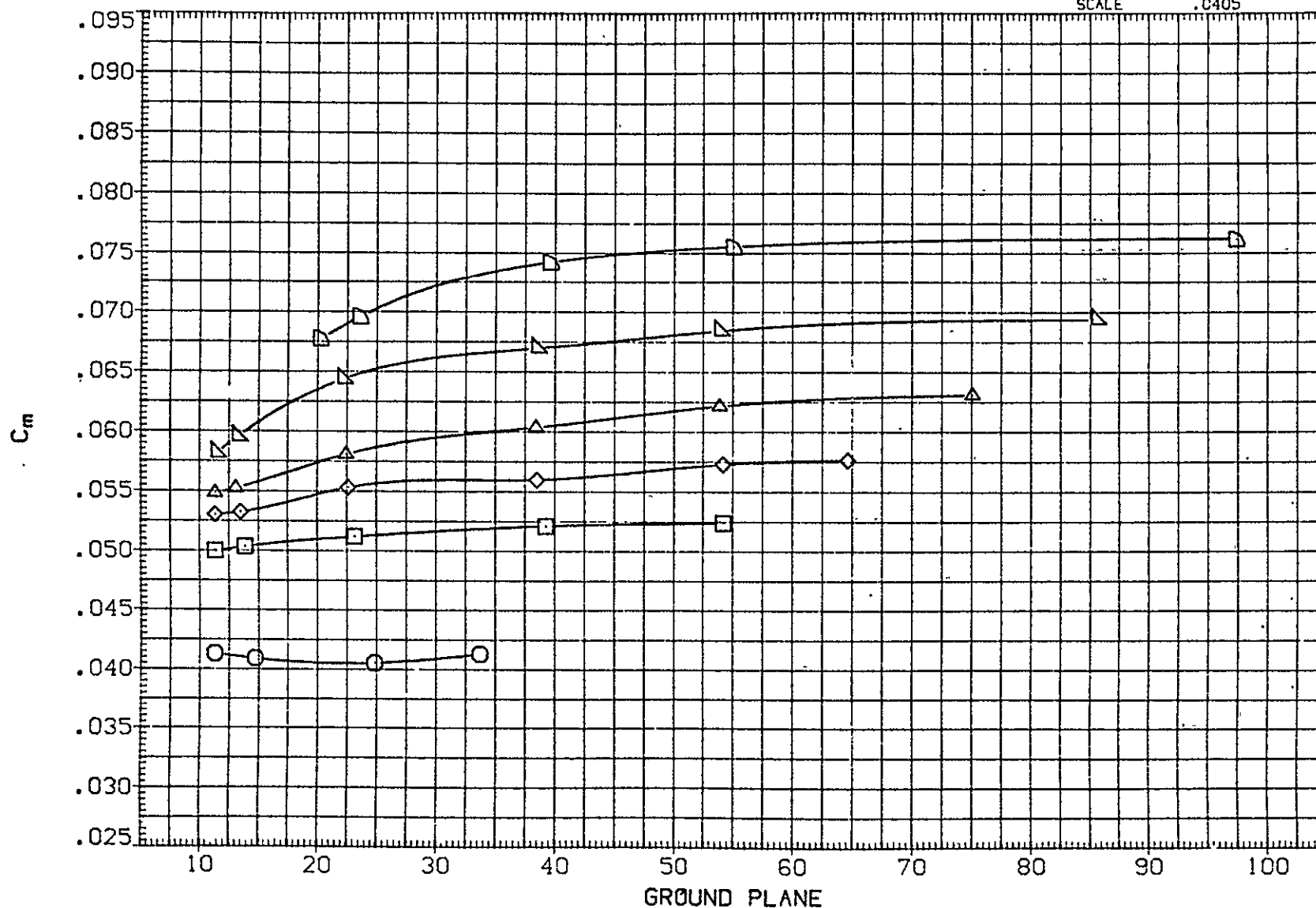


FIG 268 FERRY CON. IN GROUND PROXIMITY, STAB = 2 FLAPS 10 IORB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF392) | ○      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | .128   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50.FT |
| (TJF393) | □      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 4.184  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF394) | ◇      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 6.118  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF395) | △      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 8.182  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF396) | ▽      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 10.125 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF397) | ◻      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 12.173 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

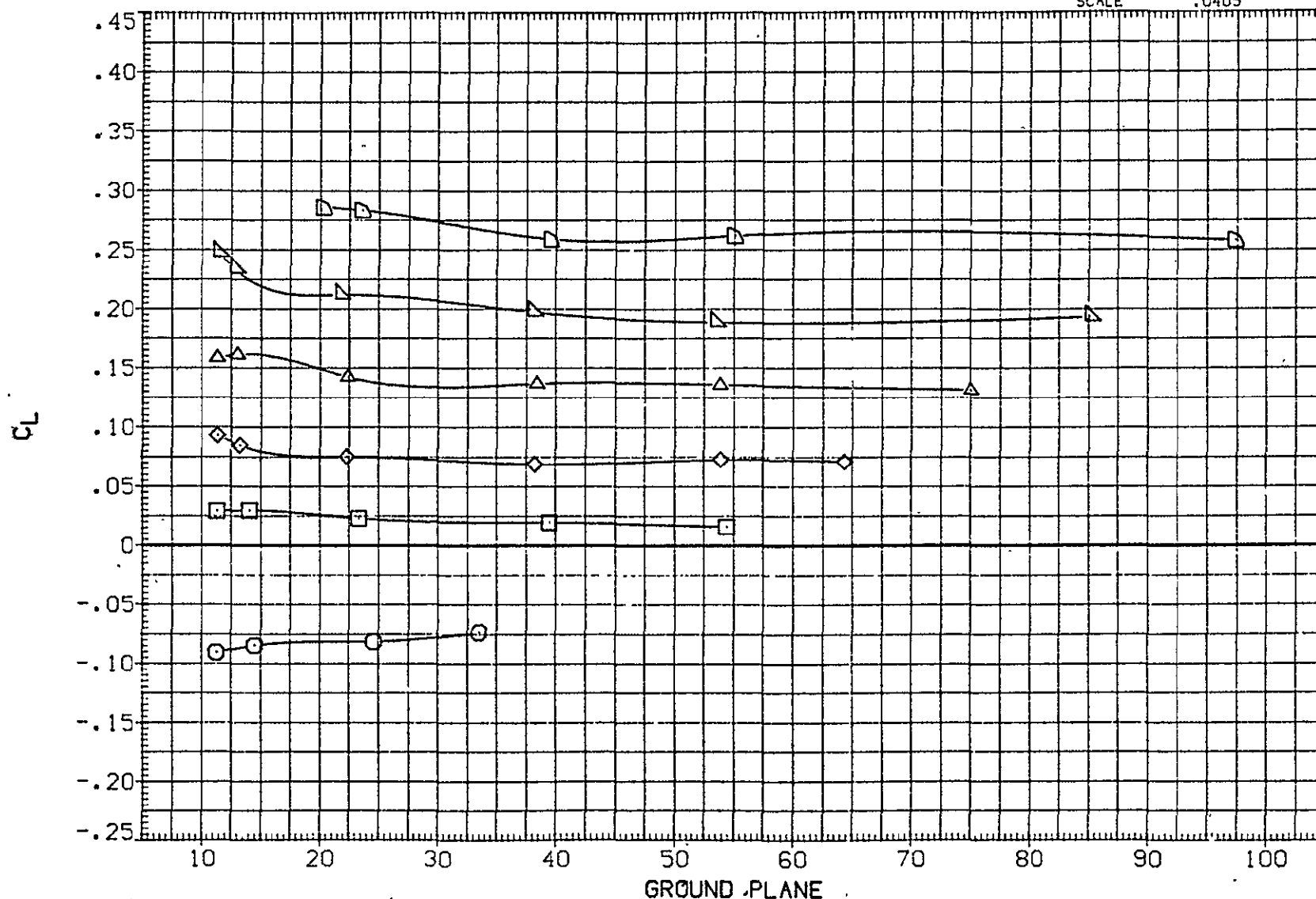


FIG 269 FERRY CON. IN GROUND PROXIMITY, STAB = 0 FLAPS 10 IORB=3. TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BOFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF392) | □      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | .128   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50.FT |
| (TJF393) | ◇      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 4.184  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | 1N.   |
| (TJF394) | ◇      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 6.118  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | 1N.   |
| (TJF395) | △      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 8.182  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | 1N.X0 |
| (TJF396) | △      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 10.125 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | 1N.Y0 |
| (TJF397) | △      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 12.173 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | 1N.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

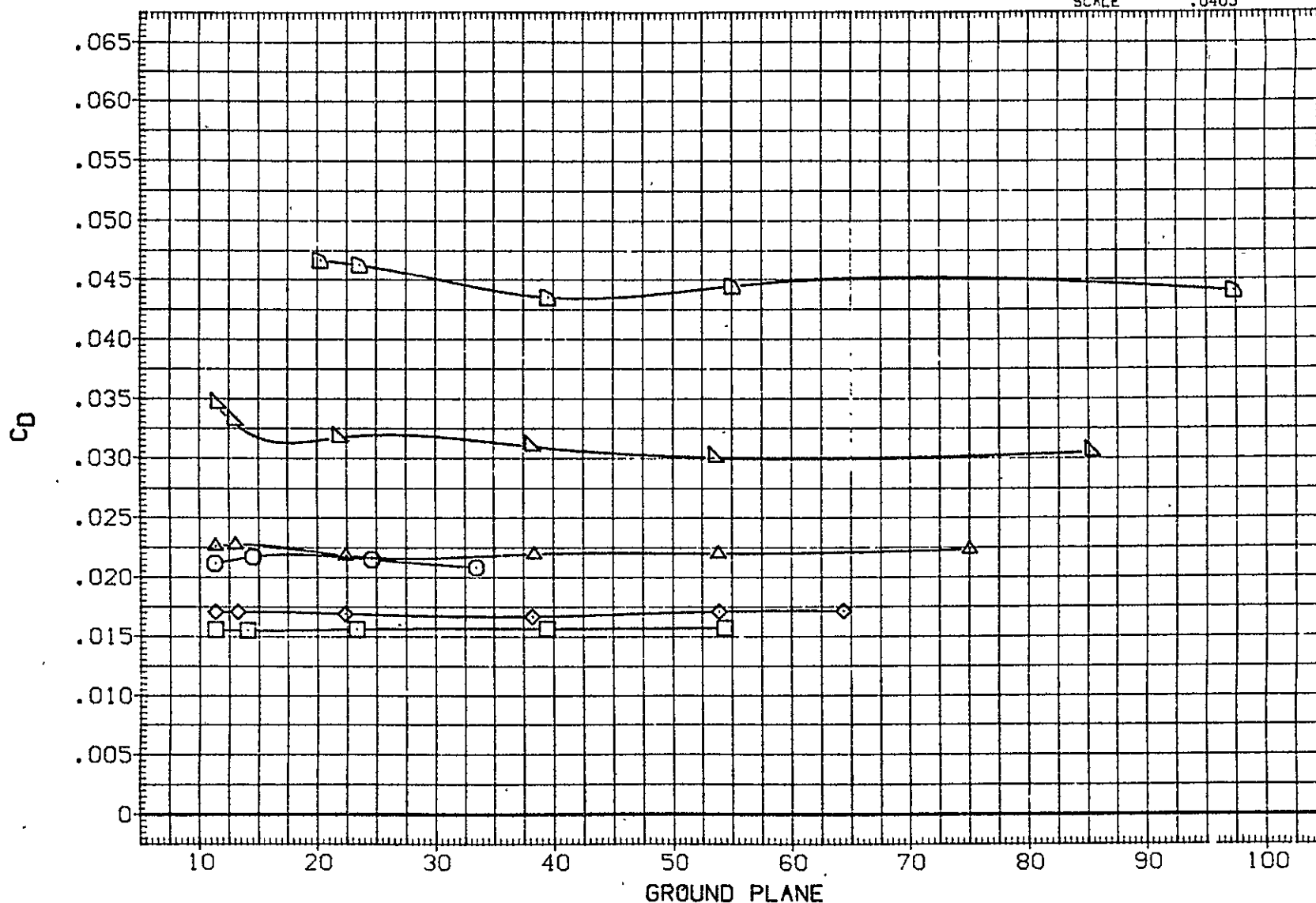


FIG 269 FERRY CON. IN GROUND PROXIMITY. STAB = 0 FLAPS 10 IORB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF392) | ○      | (CA-8) K2.1TS7H15.6.1FIOTS401G5.3.5 | .128   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50.FT |
| (TJF393) | □      | (CA-8) K2.1TS7H15.6.1FIOTS401G5.3.5 | 4.184  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF394) | ◇      | (CA-8) K2.1TS7H15.6.1FIOTS401G5.3.5 | 6.118  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF395) | △      | (CA-8) K2.1TS7H15.6.1FIOTS401G5.3.5 | 8.182  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF396) | ▽      | (CA-8) K2.1TS7H15.6.1FIOTS401G5.3.5 | 10.125 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF397) | ◻      | (CA-8) K2.1TS7H15.6.1FIOTS401G5.3.5 | 12.173 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

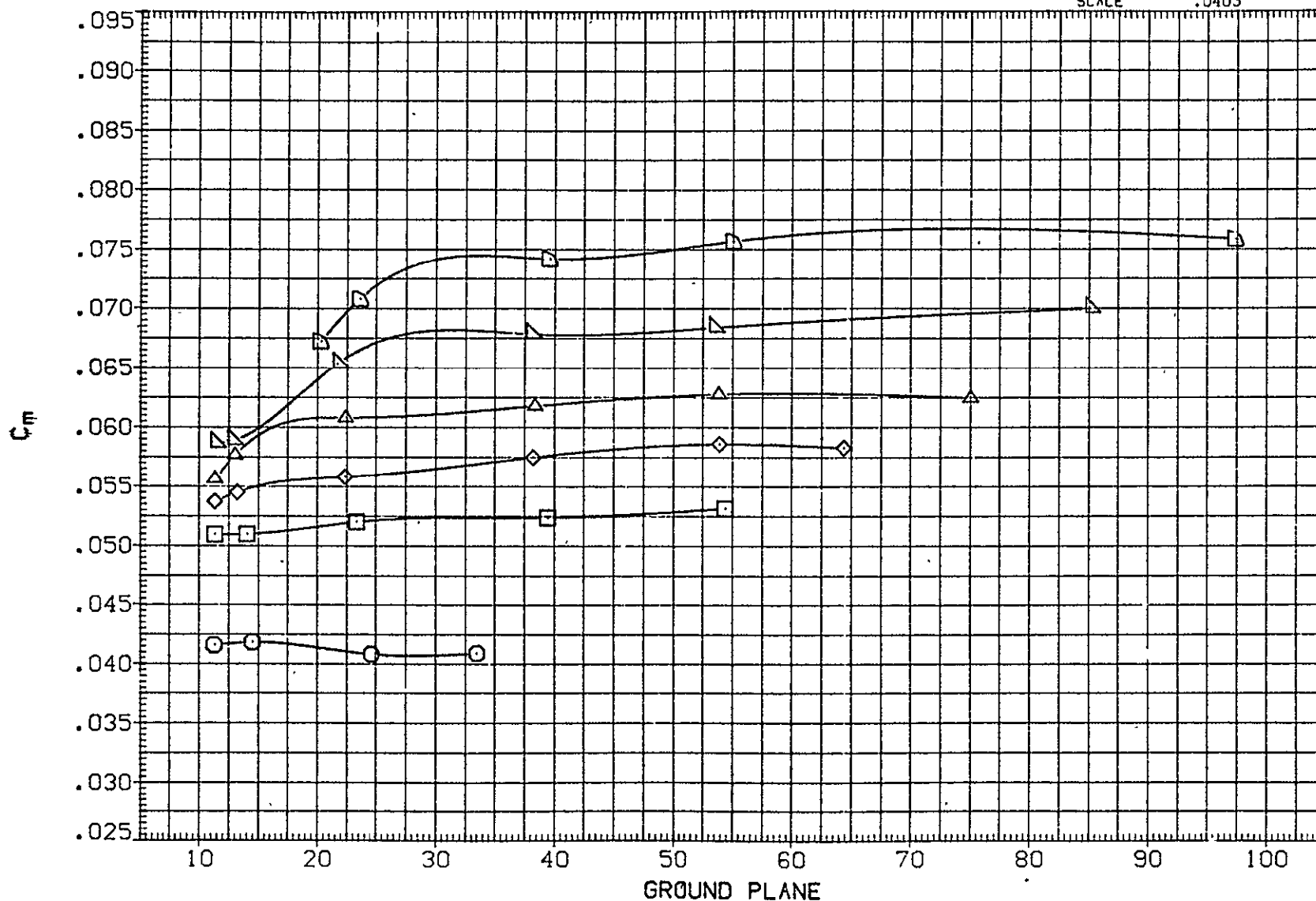


FIG 269 FERRY CON. IN GROUND PROXIMITY, STAB = 0 FLAPS 10 IORB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF398) | □      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | .178   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | SQ.FT |
| (TJF399) | ◇      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 4.155  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF400) | ◇      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 6.152  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF401) | △      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 8.127  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF402) | △      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 10.152 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF403) | △      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 12.125 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

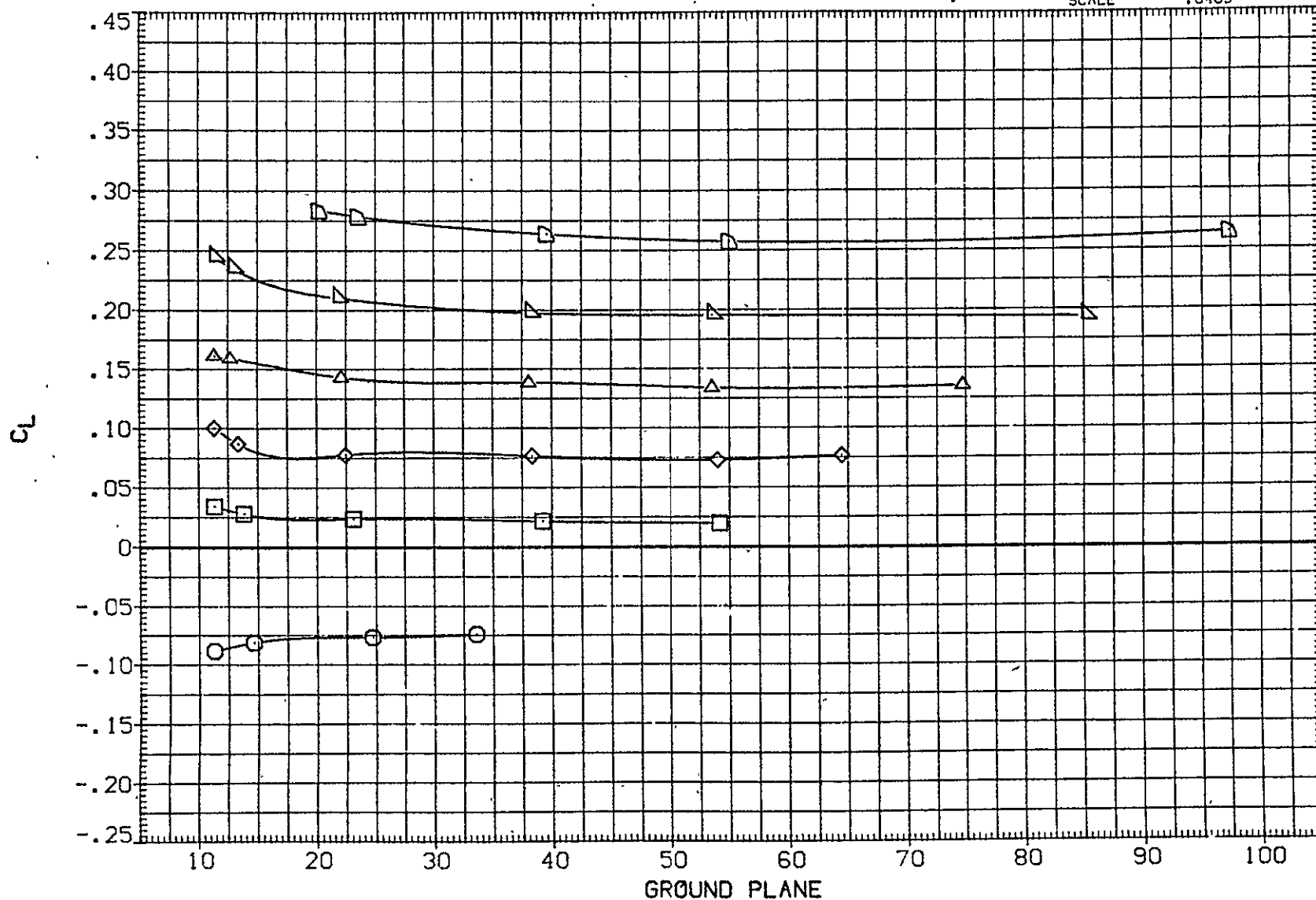


FIG 270 FERRY CON. IN GROUND PROXIMITY. STAB = -2 FLAPS 10 IORB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF398) | ○      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | .178   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50.FT |
| (TJF399) | □      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 4.155  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF400) | ◇      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 6.152  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF401) | △      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 8.127  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF402) | ▽      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 10.152 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF403) | ◻      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 12.125 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

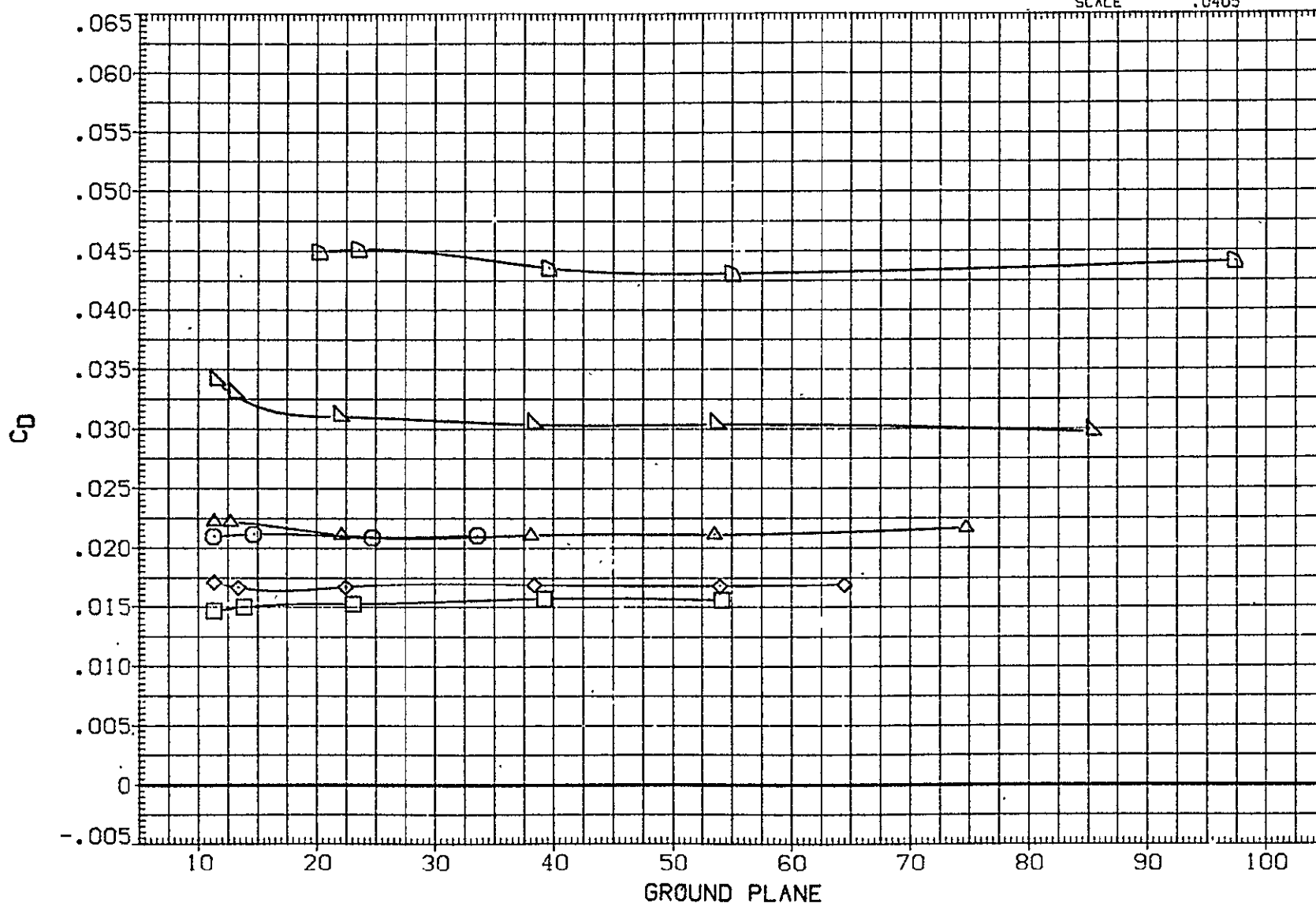


FIG 270 FERRY CON. IN GROUND PROXIMITY, STAB = -2 FLAPS 10 IORB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------------------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF398) | ○      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | .178               | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | SQ.FT |
| (TJF399) | □      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 4.155              | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF400) | ◇      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 6.152              | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF401) | △      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 8.127              | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF402) | ▽      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 10.152             | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF403) | ◻      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 12.125             | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |                    |       |         |        | SCALE                 | .0405     |       |

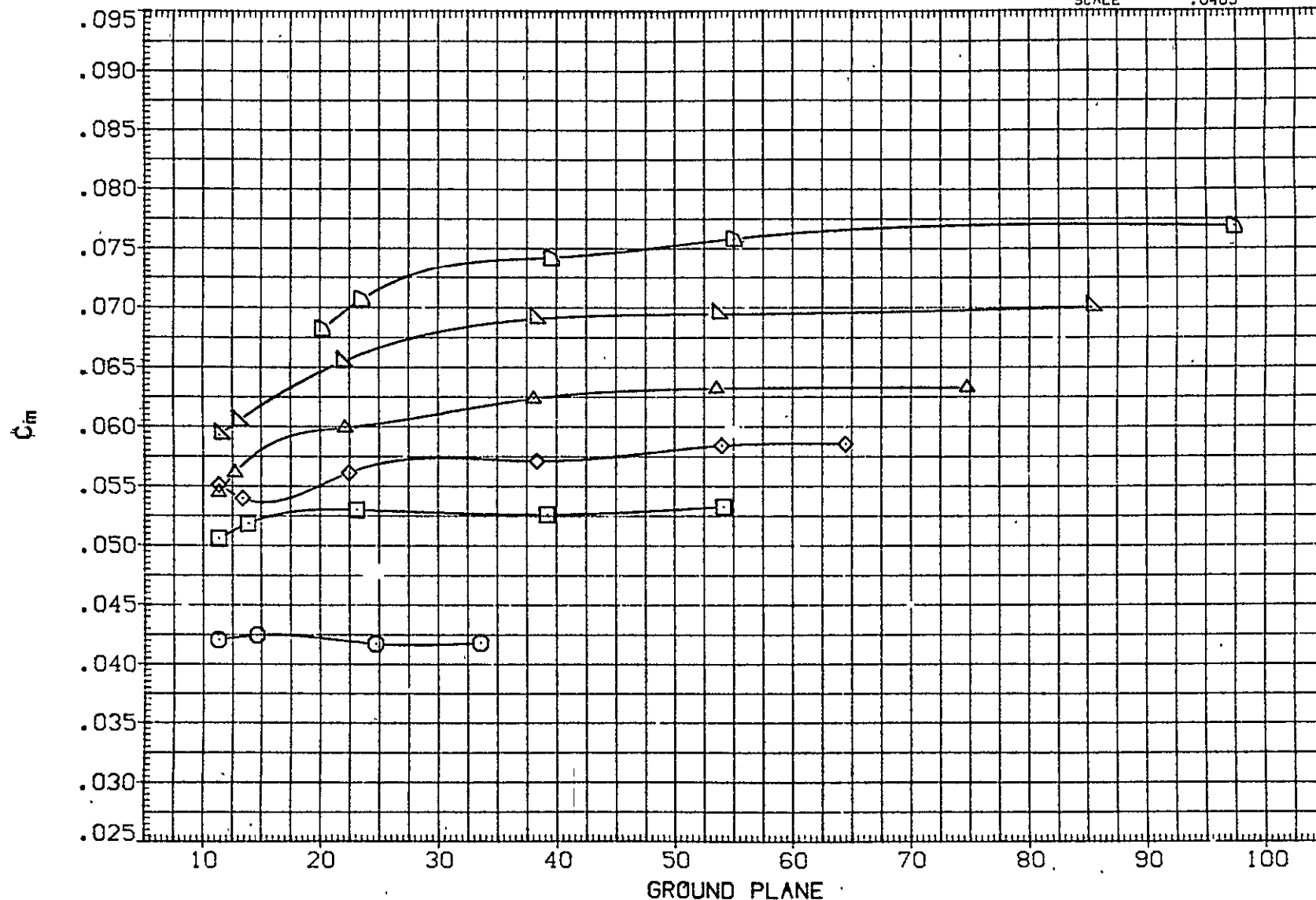


FIG 270 FERRY CON. IN GROUND PROXIMITY, STAB = -2 FLAPS 10 IORB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | IORB  | BOFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------------------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF410) | ○      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | .133               | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50. FT |
| (TJF411) | □      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | 4.213              | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.    |
| (TJF412) | ◇      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | 6.142              | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.    |
| (TJF413) | △      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | 8.115              | 3.000 | -11.700 | .000   | XMRF                  | 1109.0000 | IN. X0 |
| (TJF414) | ▽      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | 10.239             | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN. Y0 |
| (TJF415) | ◻      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | 12.206             | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |                    |       |         |        | SCALE                 | .0405     |        |

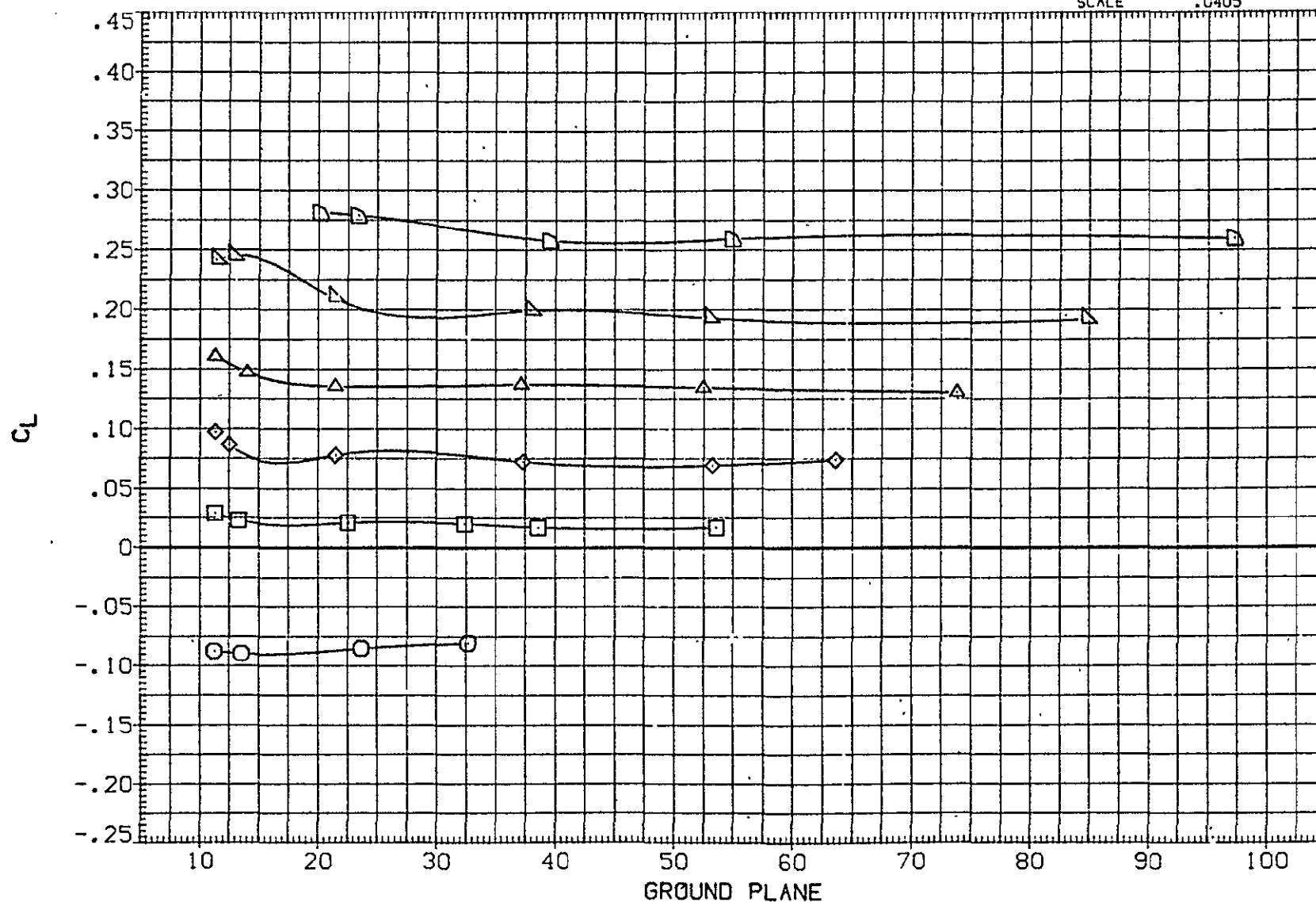


FIG 271 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF410) | ○      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | .133   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50.FT |
| (TJF411) | ◇      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 4.213  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF412) | △      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 6.142  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF413) | ▽      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 8.115  | 3.000 | -11.700 | .000   | XM RP                 | 1109.0000 | IN.X0 |
| (TJF414) | □      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 10.239 | 3.000 | -11.700 | .000   | YM RP                 | .0000     | IN.Y0 |
| (TJF415) | ◇      | (CA-8) K2.1TS7H15.6.1F10TS401G5.3.5 | 12.206 | 3.000 | -11.700 | .000   | ZM RP                 | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

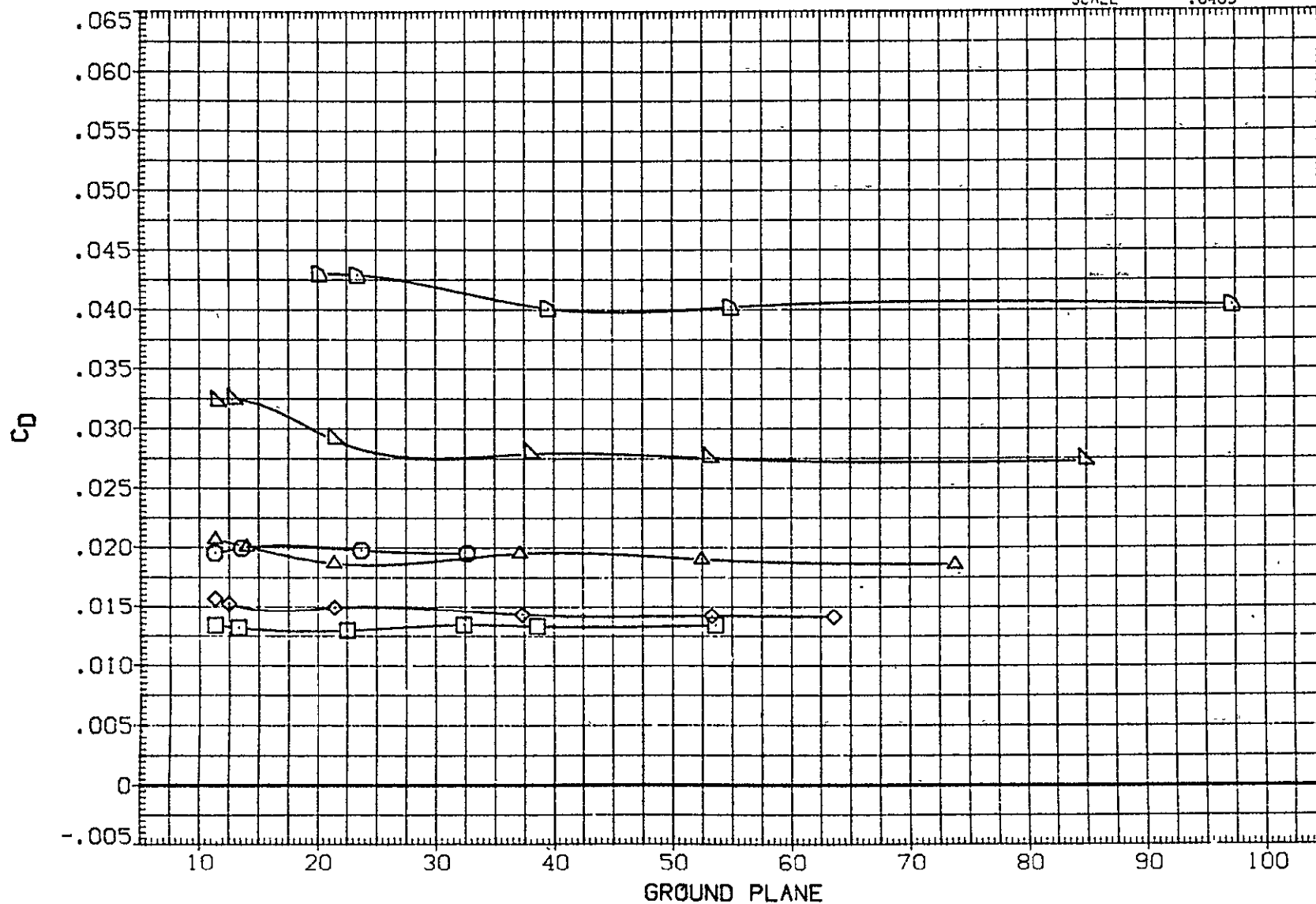


FIG 271 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=3, TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF410) | ○      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | .133   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50. FT |
| (TJF411) | □      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | 4.213  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | 1N.    |
| (TJF412) | ◇      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | 6.142  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | 1N.    |
| (TJF413) | △      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | 8.115  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | 1N. X0 |
| (TJF414) | ▽      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | 10.239 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | 1N. Y0 |
| (TJF415) | ◻      | (CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5 | 12.206 | 3.000 | -11.700 | .000   | ZMPP                  | 375.0000  | 1N. Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

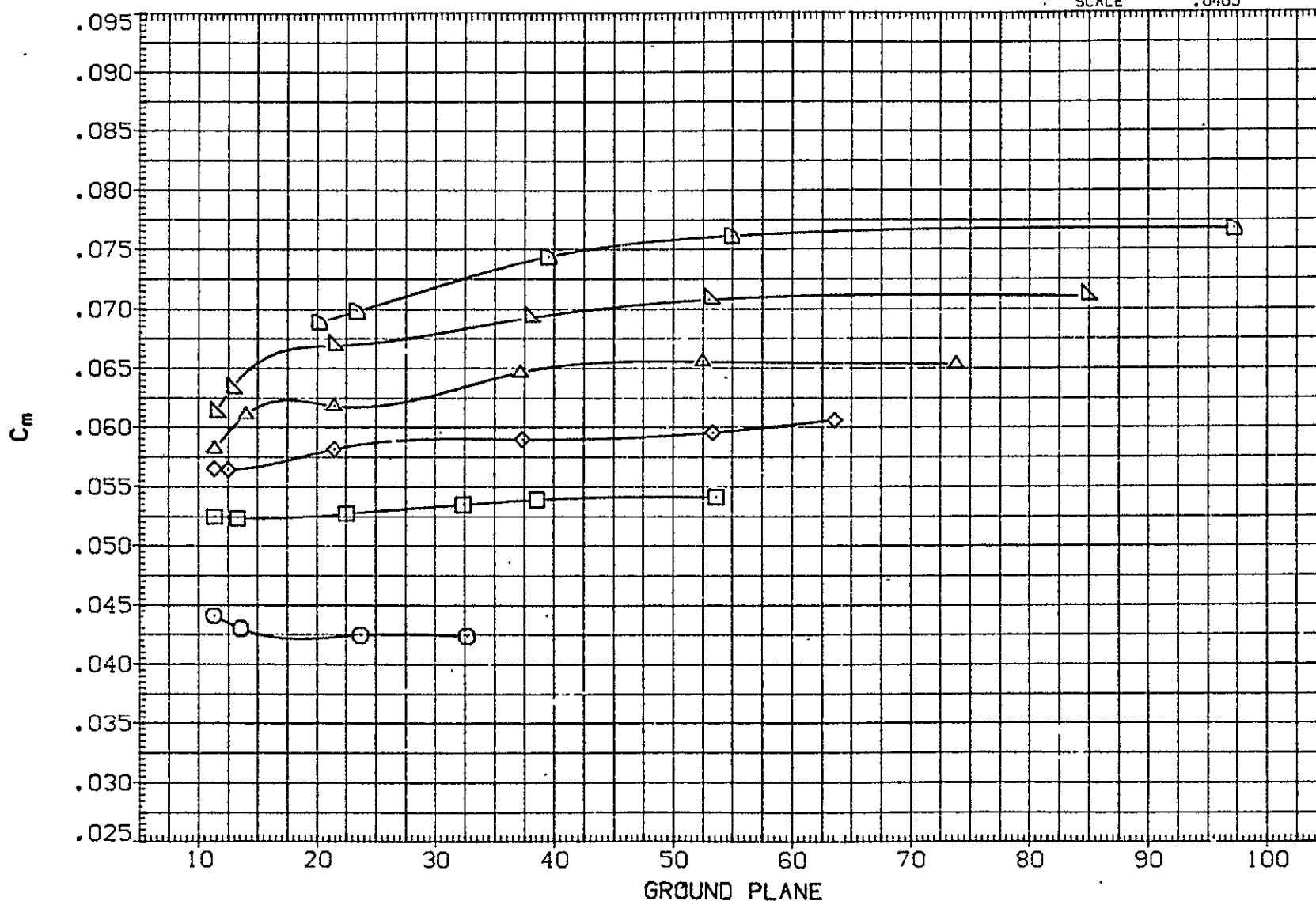


FIG 271 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=3, TC ON ORBITER BALANCE DATA-GP SWEEPS



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA  | IORB  | BDFLAP  | EL.EVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------|--------|-------|---------|---------|-----------------------|-----------|--------|
| (TJF422) | ○      | (CA-8) K2.ITS7 F20TS40165.3.5 | .183   | 3.000 | -11.700 | .000    | SREF                  | 2690.0000 | SQ.FT  |
| (TJF423) | □      | (CA-8) K2.ITS7 F20TS40165.3.5 | 4.173  | 3.000 | -11.700 | .000    | LREF                  | 474.8100  | IN.    |
| (TJF424) | ◇      | (CA-8) K2.ITS7 F20TS40165.3.5 | 6.153  | 3.000 | -11.700 | .000    | BREF                  | 936.6800  | IN.    |
| (TJF425) | △      | (CA-8) K2.ITS7 F20TS40165.3.5 | 8.284  | 3.000 | -11.700 | .000    | XMRP                  | 1109.0000 | IN. X0 |
| (TJF426) | ▽      | (CA-8) K2.ITS7 F20TS40165.3.5 | 10.235 | 3.000 | -11.700 | .000    | YMRP                  | .0000     | IN. Y0 |
| (TJF427) | ◻      | (CA-8) K2.ITS7 F20TS40165.3.5 | 12.154 | 3.000 | -11.700 | .000    | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                               |        |       |         |         | SCALE                 | .0405     |        |

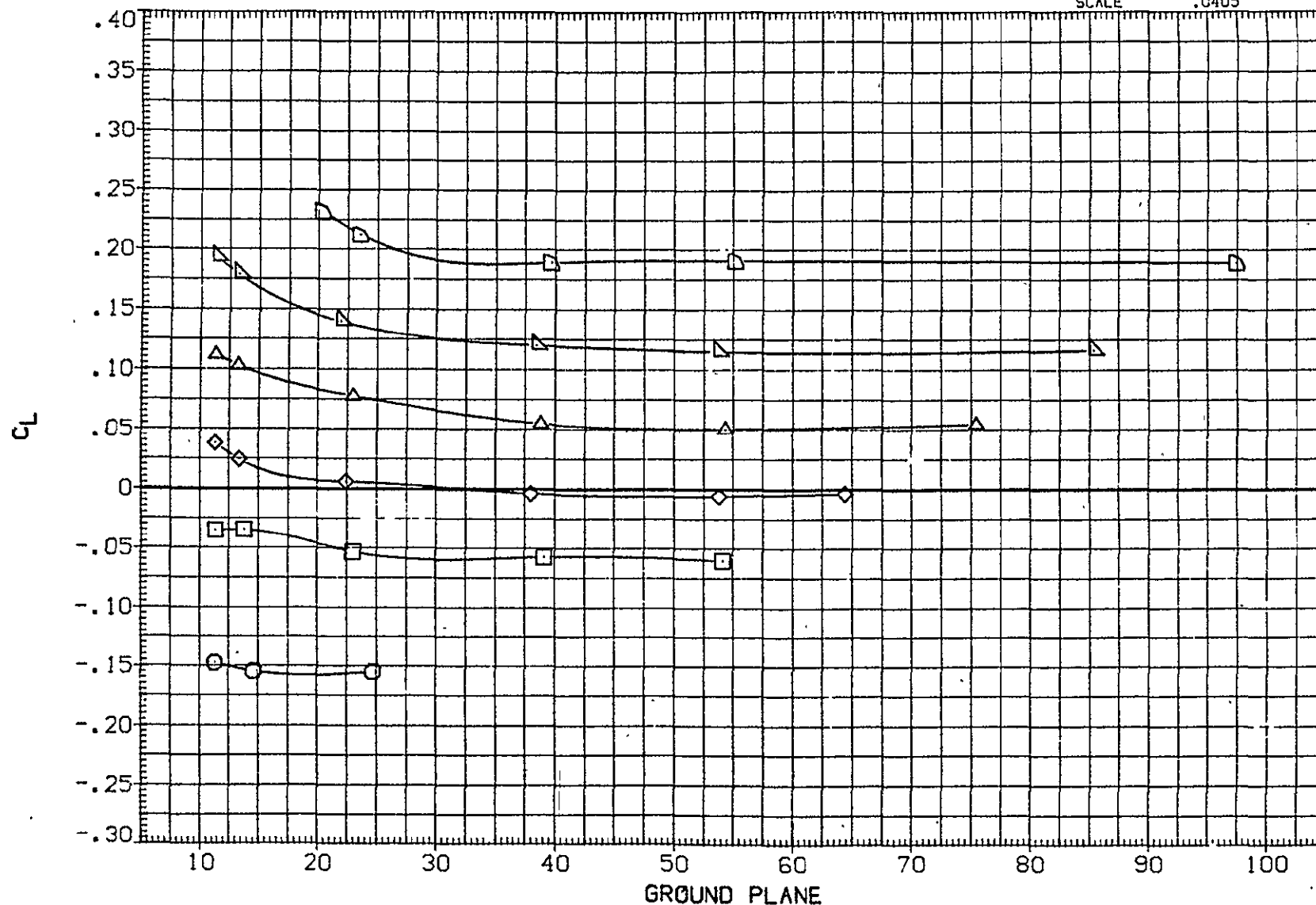


FIG 272 FERRY CON. IN GROUND PROXIMITY, HORIZ OFF, FLAPS 20  
ORBITER BALANCE DATA-GP SWEEPS

IORB=3, TC ON

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF422) | ○      | (CA-8) K2.1TS7 F20TS40165.3.5 | .183   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50. FT |
| (TJF423) | □      | (CA-8) K2.1TS7 F20TS40165.3.5 | 4.173  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.    |
| (TJF424) | ◇      | (CA-8) K2.1TS7 F20TS40165.3.5 | 6.153  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.    |
| (TJF425) | △      | (CA-8) K2.1TS7 F20TS40165.3.5 | 8.284  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN. X0 |
| (TJF426) | ▽      | (CA-8) K2.1TS7 F20TS40165.3.5 | 10.235 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN. Y0 |
| (TJF427) | ◻      | (CA-8) K2.1TS7 F20TS40165.3.5 | 12.154 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                               |        |       |         |        | SCALE                 | J5        |        |

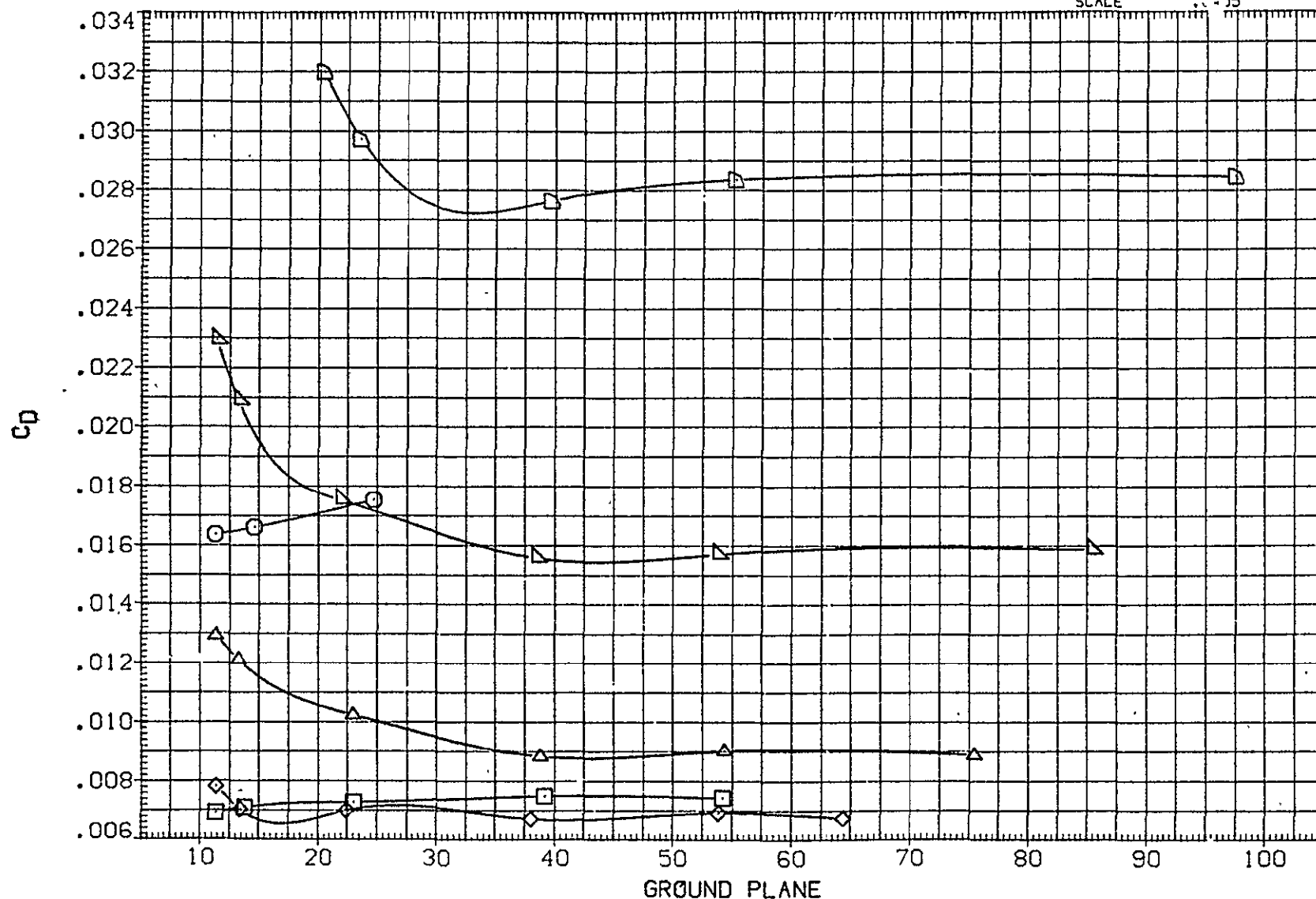


FIG 272 FERRY CON. IN GROUND PROXIMITY, HORIZ OFF. FLAPS 20 IORB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF422) | ○      | (CA-8) K2.1TS7 F20TS40165.3.5 | .183   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50.FT |
| (TJF423) | □      | (CA-8) K2.1TS7 F20TS40165.3.5 | 4.173  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | 1N.   |
| (TJF424) | ◇      | (CA-8) K2.1TS7 F20TS40165.3.5 | 6.153  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | 1N.   |
| (TJF425) | △      | (CA-8) K2.1TS7 F20TS40165.3.5 | 8.284  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | 1N.X0 |
| (TJF426) | ▽      | (CA-8) K2.1TS7 F20TS40165.3.5 | 10.235 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | 1N.Y0 |
| (TJF427) | ◻      | (CA-8) K2.1TS7 F20TS40165.3.5 | 12.154 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | 1N.Z0 |
|          |        |                               |        |       |         |        | SCALE                 | .0405     |       |

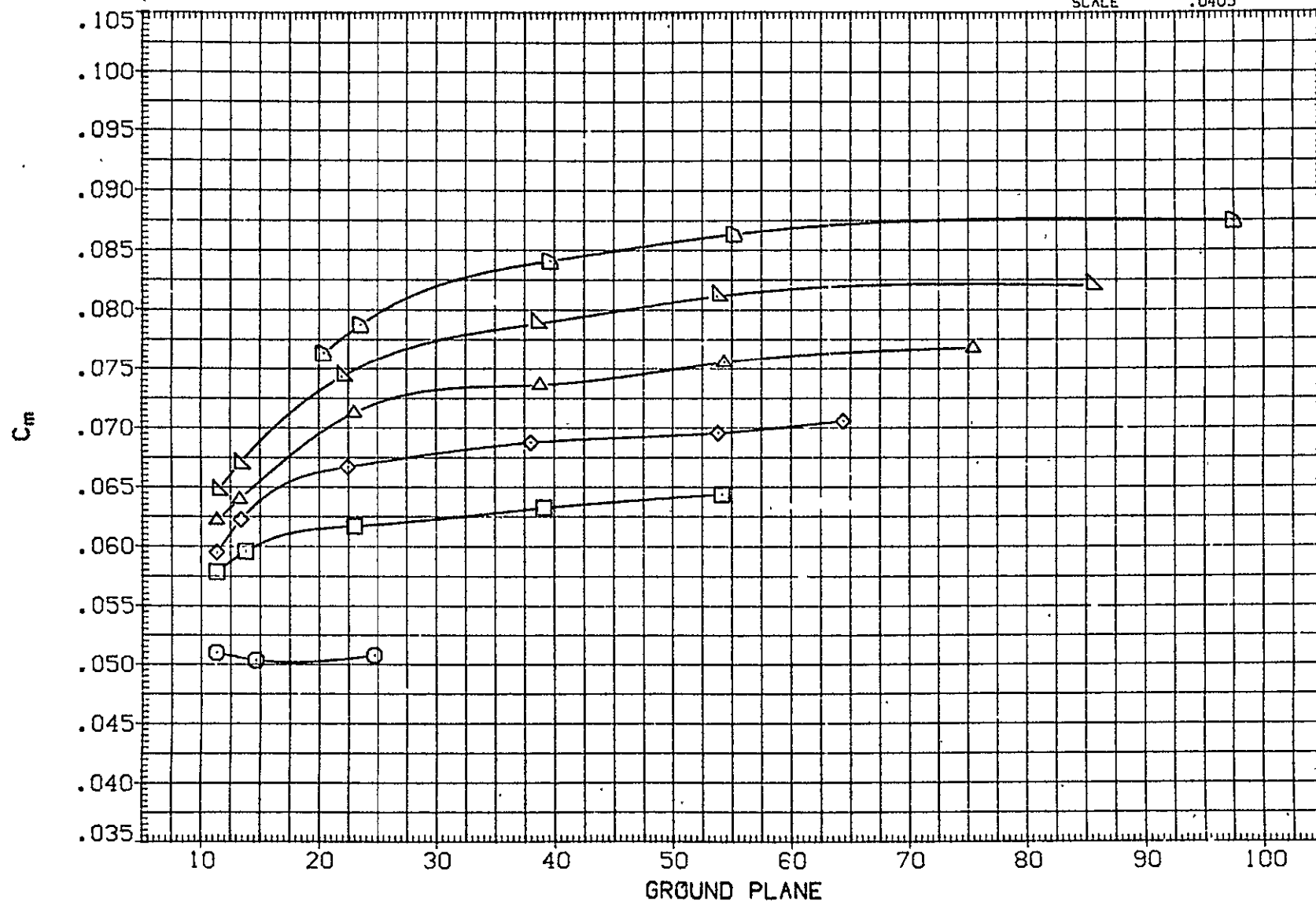


FIG 272 FERRY CON. IN GROUND PROXIMITY, HORIZ OFF, FLAPS 20 IORB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF440) | ○      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | .293   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | SQ.FT |
| (TJF441) | □      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 4.248  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF442) | ◇      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 6.218  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF443) | △      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 8.128  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF444) | ▽      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 10.224 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF445) | ◻      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 12.120 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

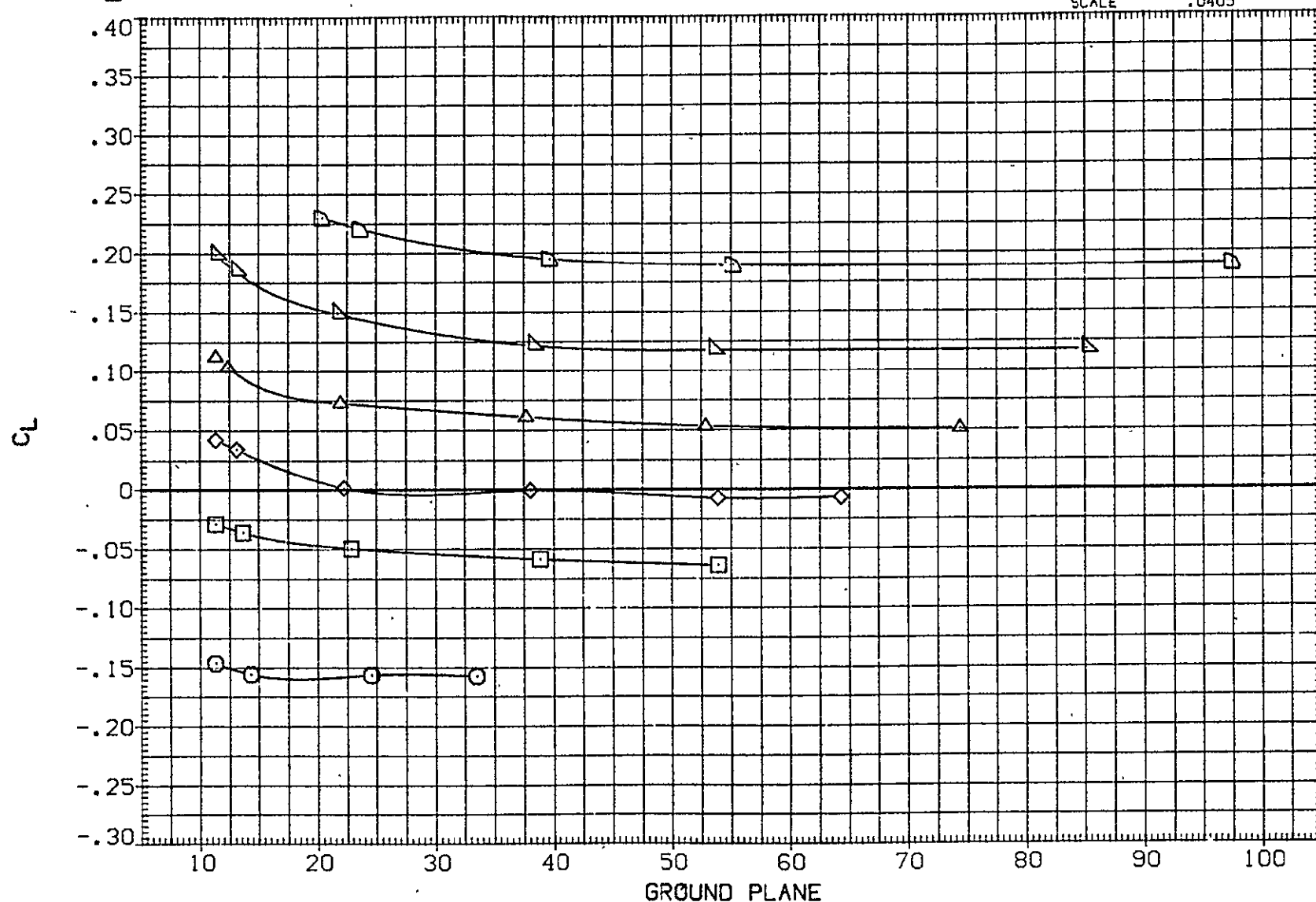


FIG 273 FERRY CON. IN GROUND PROXIMITY, STAB = 0, FLAPS 20 IORB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA W | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|---------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF440) | ○      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | .293    | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50. FT |
| (TJF441) | □      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 4.248   | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.    |
| (TJF442) | ◇      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 6.218   | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.    |
| (TJF443) | △      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 8.128   | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN. X0 |
| (TJF444) | ▽      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 10.224  | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN. Y0 |
| (TJF445) | ◊      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 12.120  | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |         |       |         |        | SCALE                 | .0405     |        |

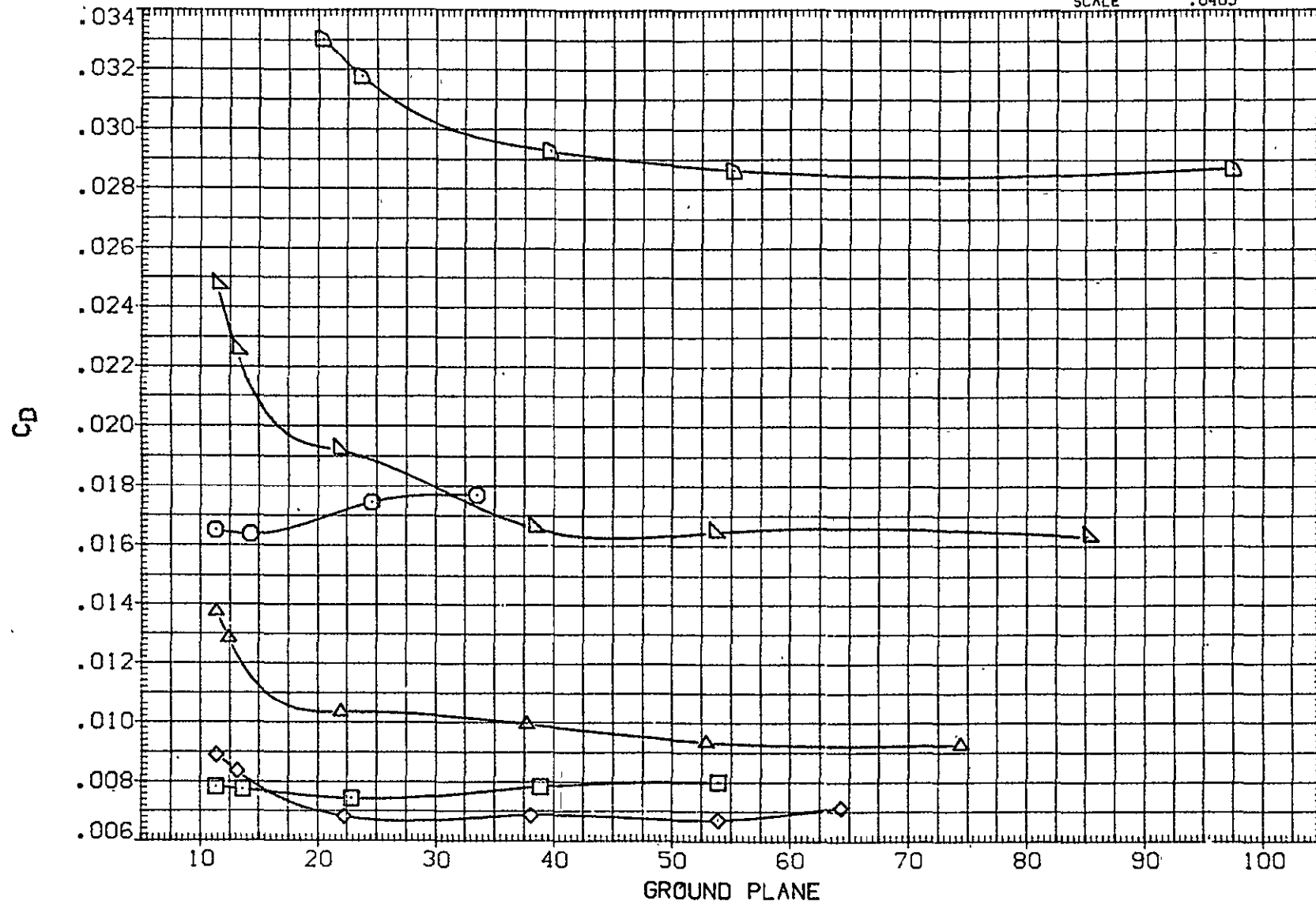


FIG 273 FERRY CON. IN GROUND PROXIMITY, STAB = 0, FLAPS 20 IORB=3. TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF440) | ○      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | .293   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50.FT |
| (TJF441) | □      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 4.248  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF442) | ◇      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 6.218  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF443) | △      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 8.128  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF444) | ▽      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 10.224 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF445) | ◊      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 12.120 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

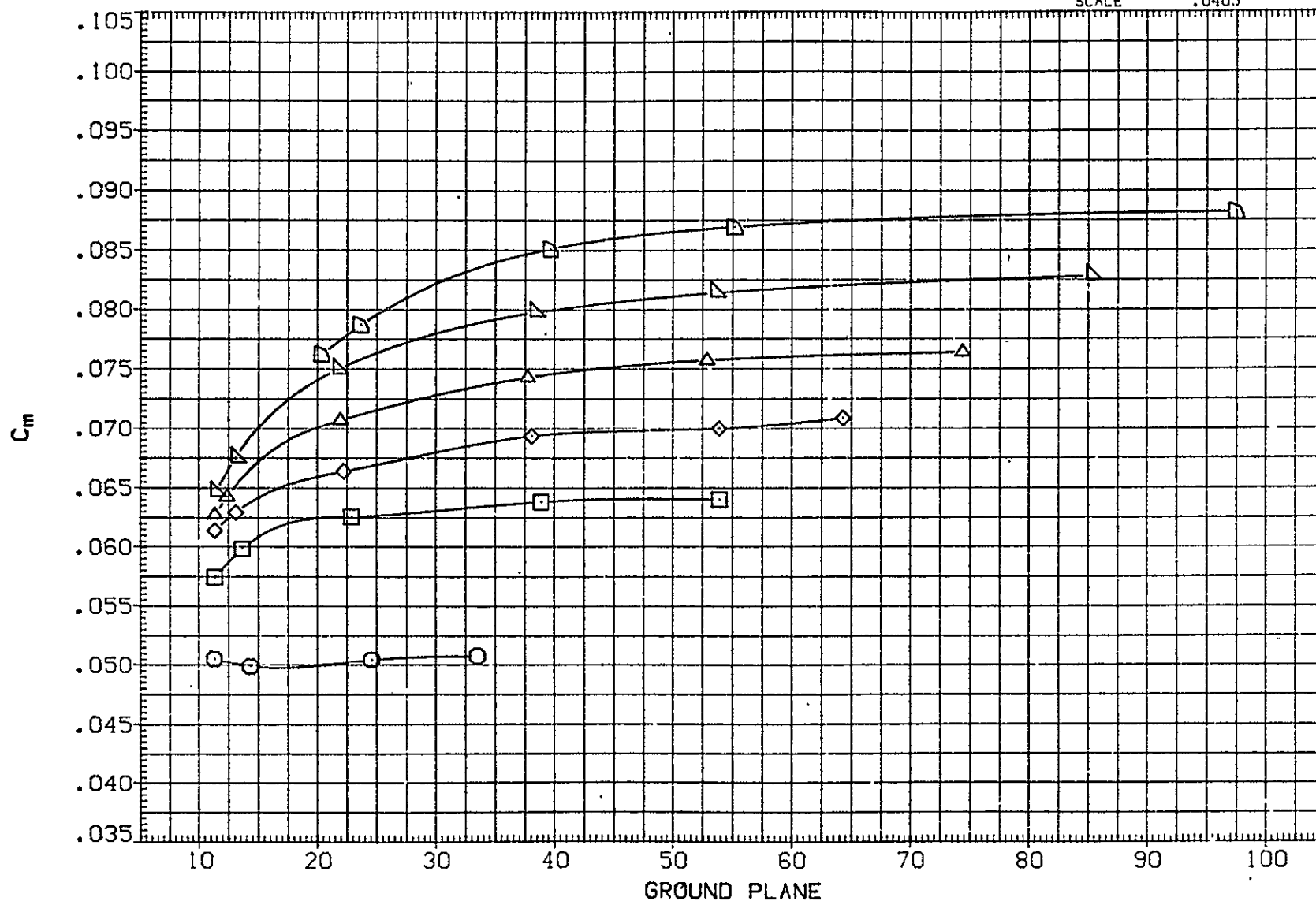


FIG 273 FERRY CON. IN GROUND PROXIMITY, STAB = 0, FLAPS 20 IORB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF434) | ○      | (CA-8) K2.1TS7H15.6.1F20TS40165.3.5 | .213   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | SQ.FT  |
| (TJF435) | □      | (CA-8) K2.1TS7H15.6.1F20TS40165.3.5 | 4.217  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.    |
| (TJF436) | ◇      | (CA-8) K2.1TS7H15.6.1F20TS40165.3.5 | 6.243  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.    |
| (TJF437) | △      | (CA-8) K2.1TS7H15.6.1F20TS40165.3.5 | 8.082  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN. X0 |
| (TJF438) | ▽      | (CA-8) K2.1TS7H15.6.1F20TS40165.3.5 | 10.091 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN. Y0 |
| (TJF439) | ◻      | (CA-8) K2.1TS7H15.6.1F20TS40165.3.5 | 12.115 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

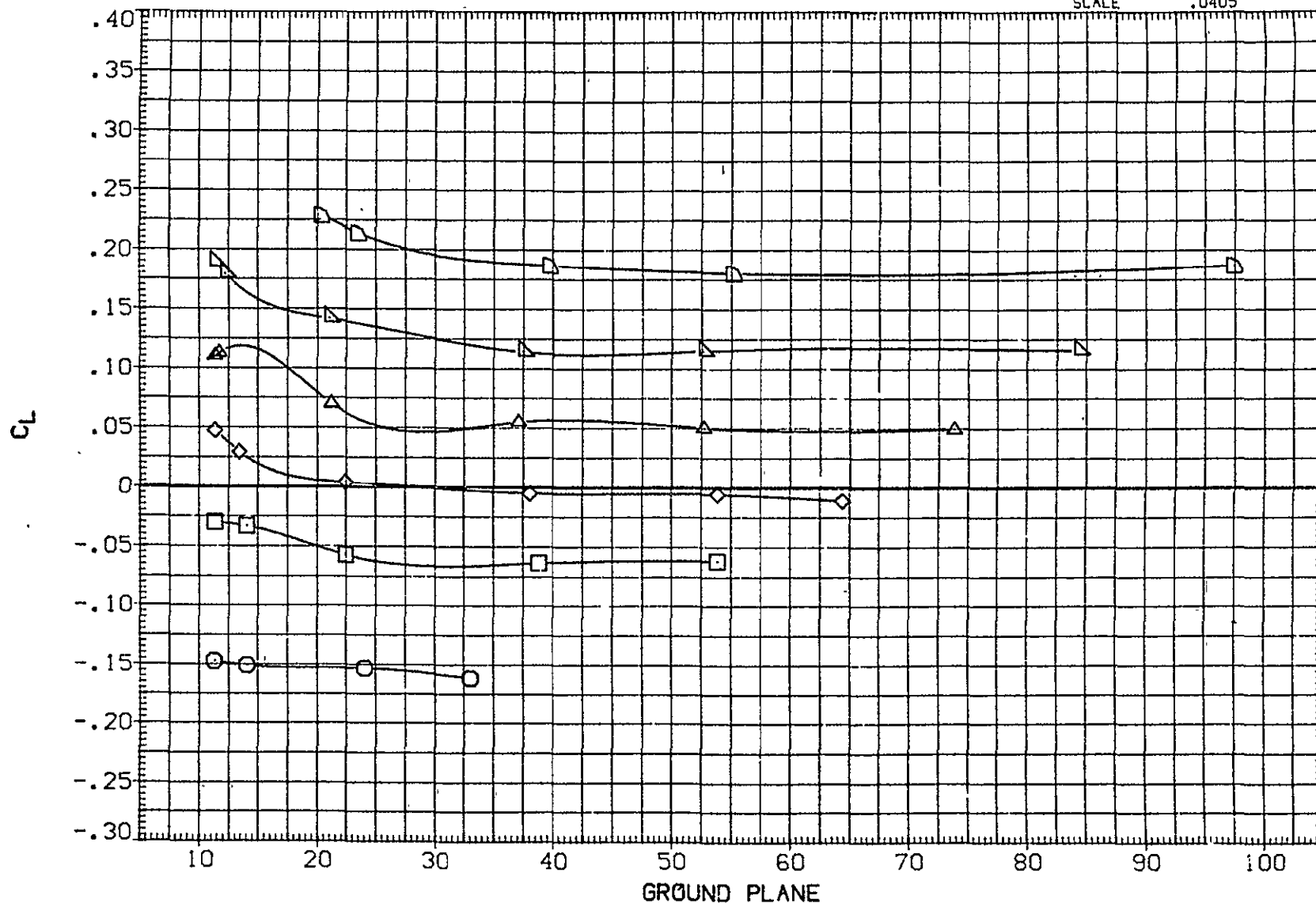


FIG 274 FERRY CON. IN GROUND PROXIMITY, STAB = -2, FLAPS 20 IORB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | I <sub>ORB</sub> | BD <sub>FLAP</sub> | EI <sub>EVGN</sub> | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------------------|------------------|--------------------|--------------------|-----------------------|-----------|--------|
| (TJF434) | ○      | (CA-8) K2.1TS7H15.6.1F20TS40165.3.5 | .213               | 3.000            | -11.700            | .000               | SREF                  | 2690.0000 | 50. FT |
| (TJF435) | □      | (CA-8) K2.1TS7H15.6.1F20TS40165.3.5 | 4.217              | 3.000            | -11.700            | .000               | LREF                  | 474.8100  | IN.    |
| (TJF436) | ◇      | (CA-8) K2.1TS7H15.6.1F20TS40165.3.5 | 6.243              | 3.000            | -11.700            | .000               | BREF                  | 936.6800  | IN.    |
| (TJF437) | △      | (CA-8) K2.1TS7H15.6.1F20TS40165.3.5 | 8.082              | 3.000            | -11.700            | .000               | XMRP                  | 1109.0000 | IN. X0 |
| (TJF438) | ▽      | (CA-8) K2.1TS7H15.6.1F20TS40165.3.5 | 10.091             | 3.000            | -11.700            | .000               | YMRP                  | .0000     | IN. Y0 |
| (TJF439) | ◊      | (CA-8) K2.1TS7H15.6.1F20TS40165.3.5 | 12.115             | 3.000            | -11.700            | .000               | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |                    |                  |                    |                    | SCALE                 | .0405     |        |

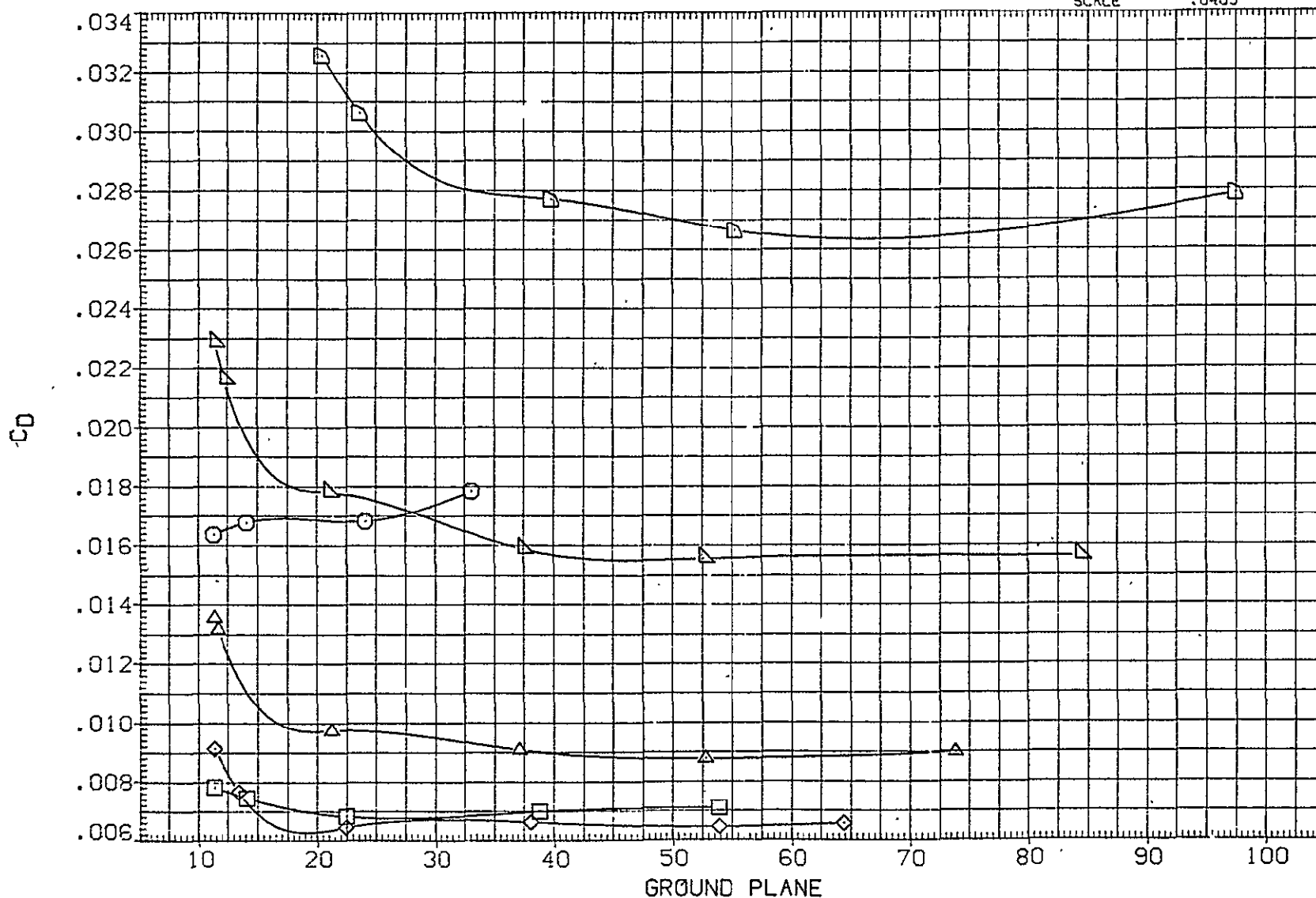


FIG 274 FERRY CON. IN GROUND PROXIMITY, STAB = -2, FLAPS 20 I<sub>ORB</sub>=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF434) | ○      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | .213   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50.FT |
| (TJF435) | □      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 4.217  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF436) | ◇      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 6.243  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF437) | △      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 8.082  | 3.000 | -11.700 | .000   | XMRF                  | 1109.0000 | IN.X0 |
| (TJF438) | ▽      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 10.091 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF439) | ◻      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 12.115 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .C405     |       |



FIG 274 FERRY CON. IN GROUND PROXIMITY, STAB = -2, FLAPS 20 IORB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A) MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF428) | □      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | .228   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50. FT |
| (TJF429) | □      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 4.127  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.    |
| (TJF430) | ×      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 6.124  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.    |
| (TJF431) | △      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 8.118  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN. X0 |
| (TJF432) | △      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 10.126 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN. Y0 |
| (TJF433) | △      | (CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5 | 12.127 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

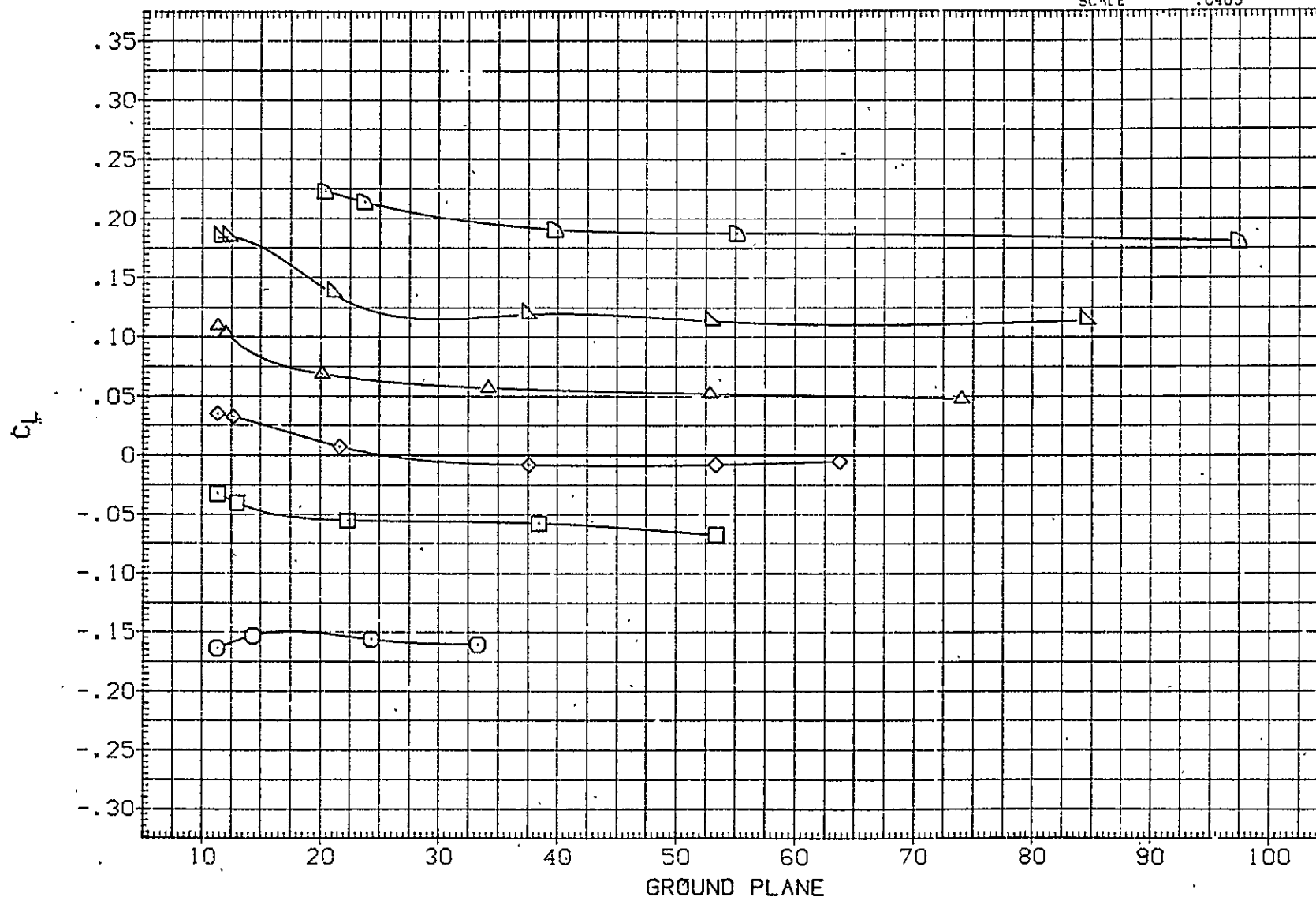


FIG 275 FERRY CON. IN GROUND PROXIMITY, STAB = -4, FLAPS 20 IORB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF428) | ○      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | .228   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | SQ.FT |
| (TJF429) | □      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 4.127  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF430) | ◇      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 6.124  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF431) | △      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 8.118  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF432) | ▽      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 10.126 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF433) | ◇      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 12.127 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

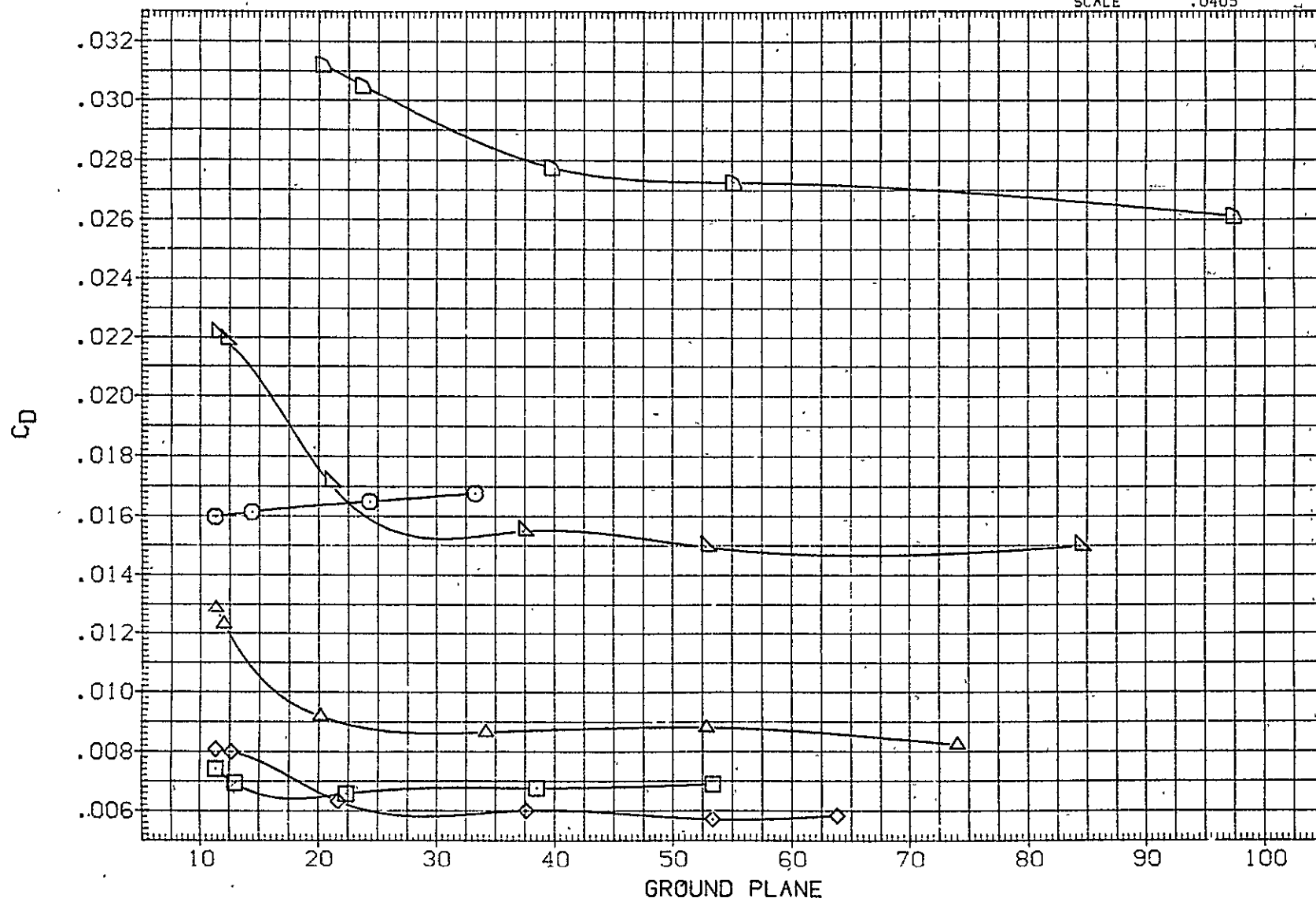


FIG 275 FERRY CON. IN GROUND PROXIMITY, STAB = -4. FLAPS 20 IORB=3. TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF428) | ○      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | .228   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | SQ.FT |
| (TJF429) | □      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 4.127  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF430) | ◇      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 6.124  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF431) | △      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 8.118  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN.X0 |
| (TJF432) | ▽      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 10.126 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN.Y0 |
| (TJF433) | ◇      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 12.127 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

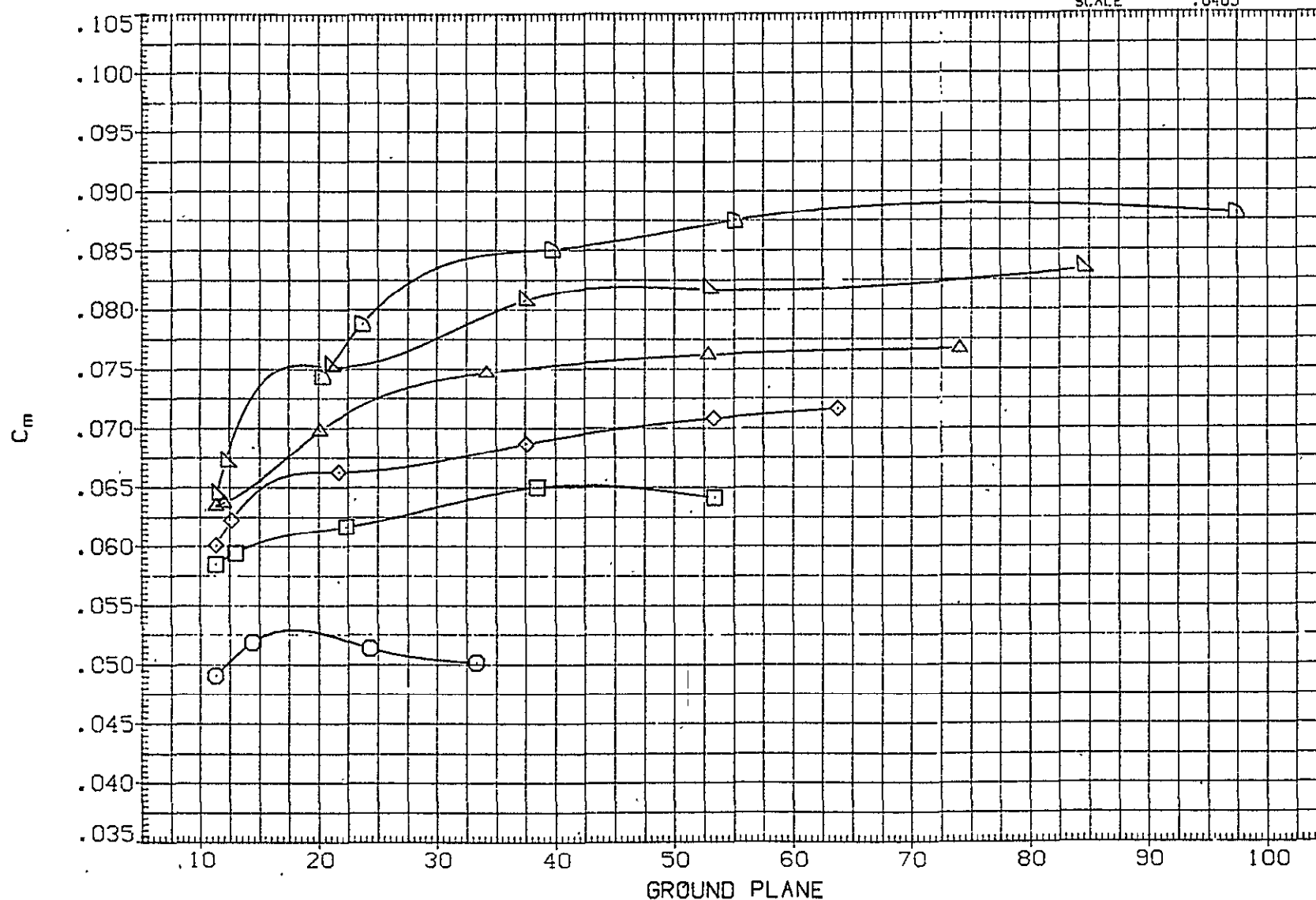


FIG 275 FERRY CON. IN GROUND PROXIMITY, STAB = -4, FLAPS 20 IORB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF416) | ○      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | .239   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50.0FT |
| (TJF417) | □      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 4.132  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | 1N.    |
| (TJF418) | △      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 6.160  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | 1N.    |
| (TJF419) | ×      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 8.144  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | 1N.X0  |
| (TJF420) | ◇      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 10.094 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | 1N.Y0  |
| (TJF421) | ▽      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 12.106 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | 1N.Z0  |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

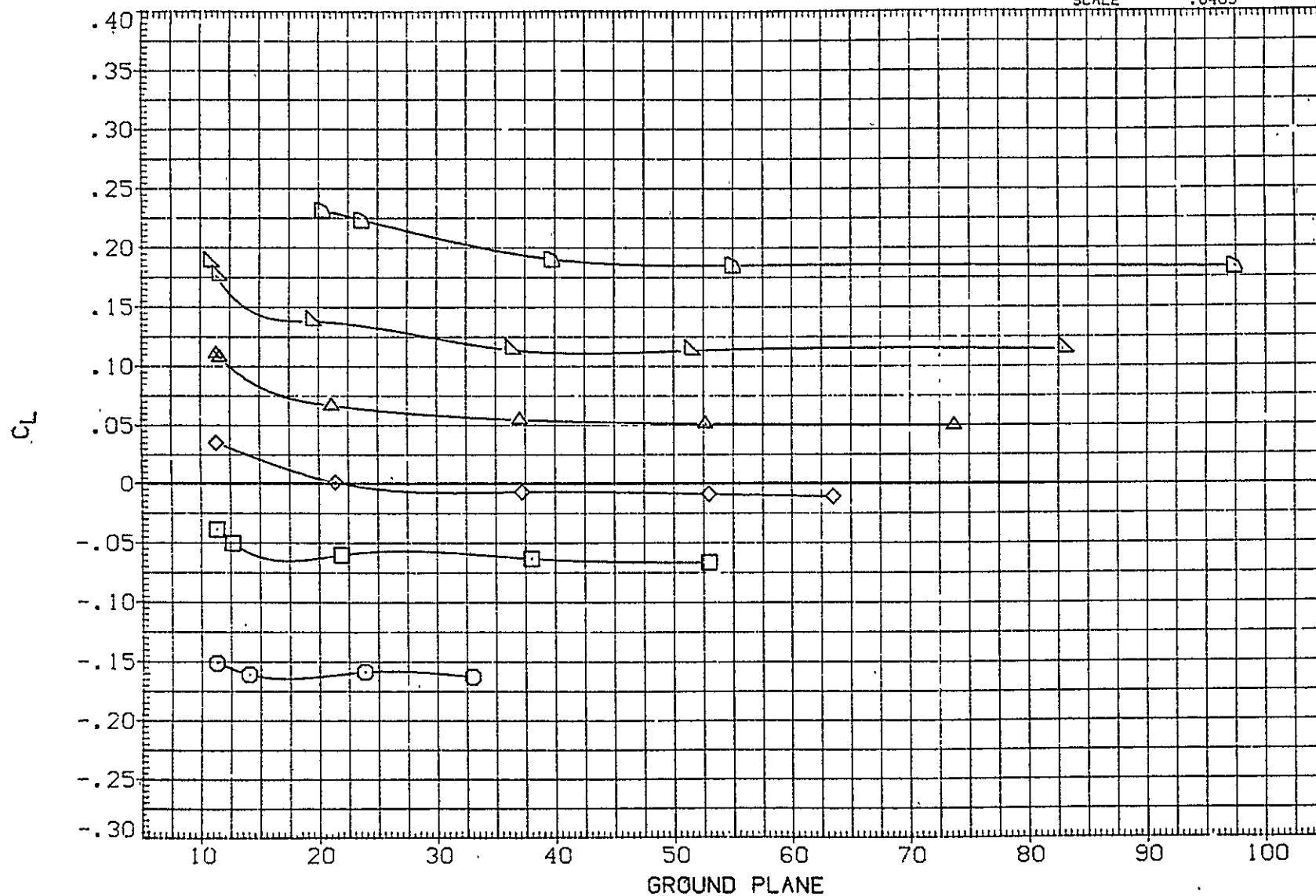


FIG 276 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=3, TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF416) | ○      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | .239   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50. FT |
| (TJF417) | □      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 4.132  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.    |
| (TJF418) | ×      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 6.160  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.    |
| (TJF419) | △      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 8.144  | 3.000 | -11.700 | .000   | XMRP                  | 1109.0000 | IN. X0 |
| (TJF420) | ▽      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 10.094 | 3.000 | -11.700 | .000   | YMRP                  | .0000     | IN. Y0 |
| (TJF421) | ◇      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 12.106 | 3.000 | -11.700 | .000   | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

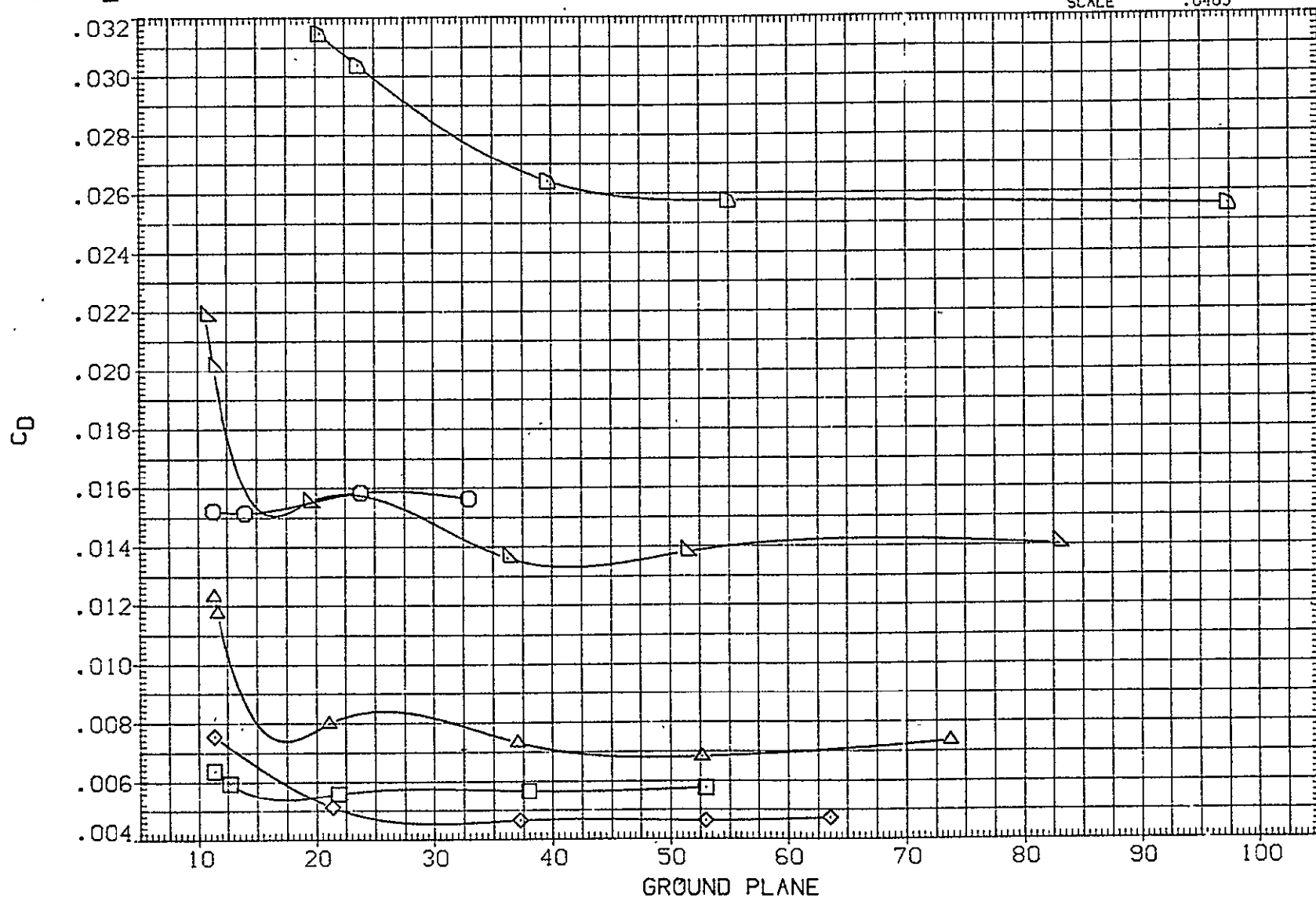


FIG 276 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=3, TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IOB   | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF416) | □      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | .239   | 3.000 | -11.700 | .000   | SREF                  | 2690.0000 | 50.FT |
| (TJF417) | ○      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 4.132  | 3.000 | -11.700 | .000   | LREF                  | 474.8100  | IN.   |
| (TJF418) | ×      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 6.160  | 3.000 | -11.700 | .000   | BREF                  | 936.6800  | IN.   |
| (TJF419) | △      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 8.144  | 3.000 | -11.700 | .000   | XMHP                  | 1109.0000 | IN.X0 |
| (TJF420) | ▽      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 10.094 | 3.000 | -11.700 | .000   | YMHP                  | .0000     | IN.Y0 |
| (TJF421) | ◇      | (CA-8) K2.1TS7H15.6.1F20TS401G5.3.5 | 12.106 | 3.000 | -11.700 | .000   | ZMHP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

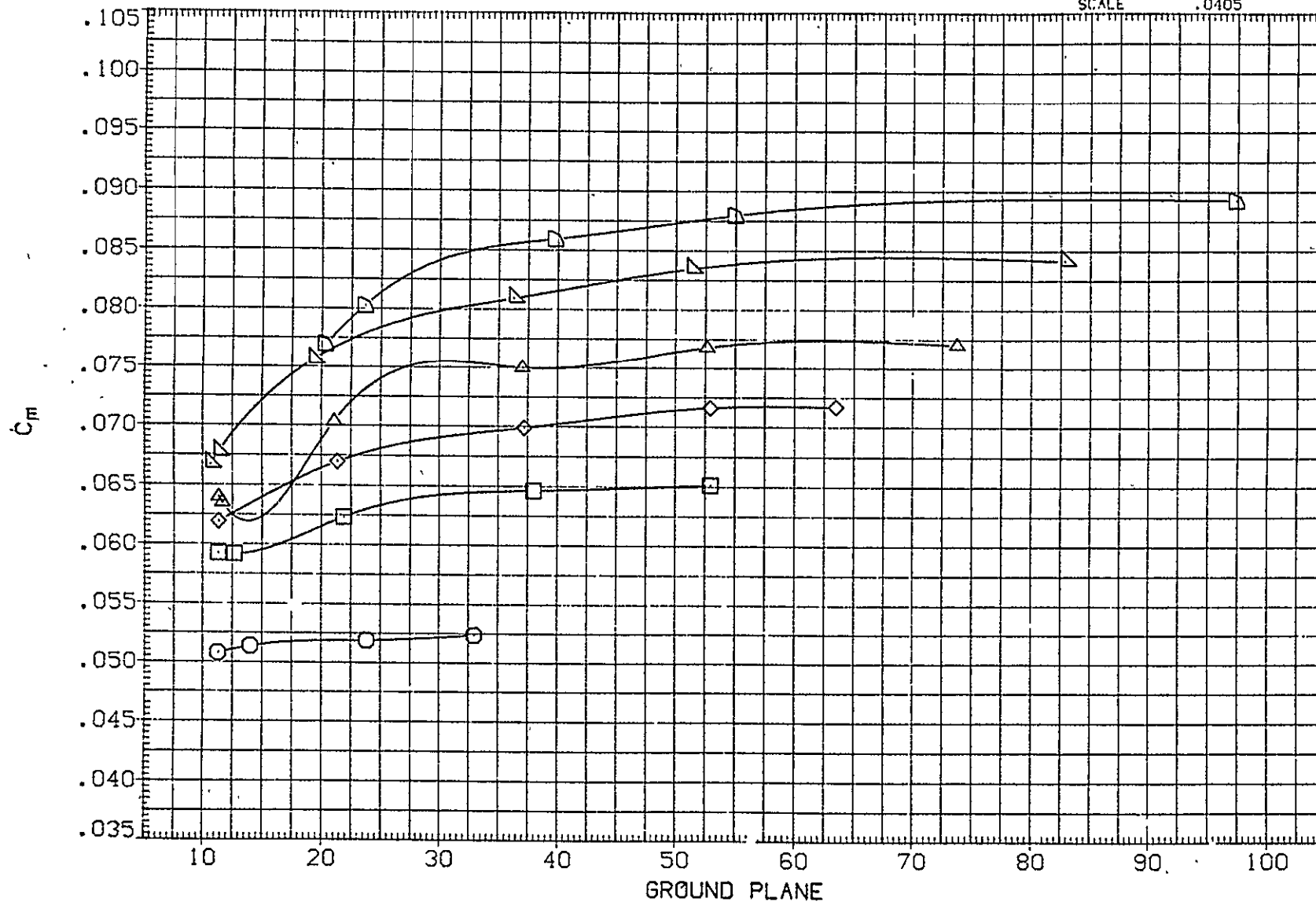


FIG 276 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IOB=3, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF482) | ○      | (CA-8) K3.1TS7 F20TS401G5.3.5 | .145   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF483) | □      | (CA-8) K3.1TS7 F20TS401G5.3.5 | 4.103  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF484) | ◇      | (CA-8) K3.1TS7 F20TS401G5.3.5 | 6.140  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF485) | △      | (CA-8) K3.1TS7 F20TS401G5.3.5 | 8.130  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF486) | ▽      | (CA-8) K3.1TS7 F20TS401G5.3.5 | 10.130 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF487) | ◻      | (CA-8) K3.1TS7 F20TS401G5.3.5 | 12.185 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                               |        |       |         |        | SCALE                 | .0405     |        |

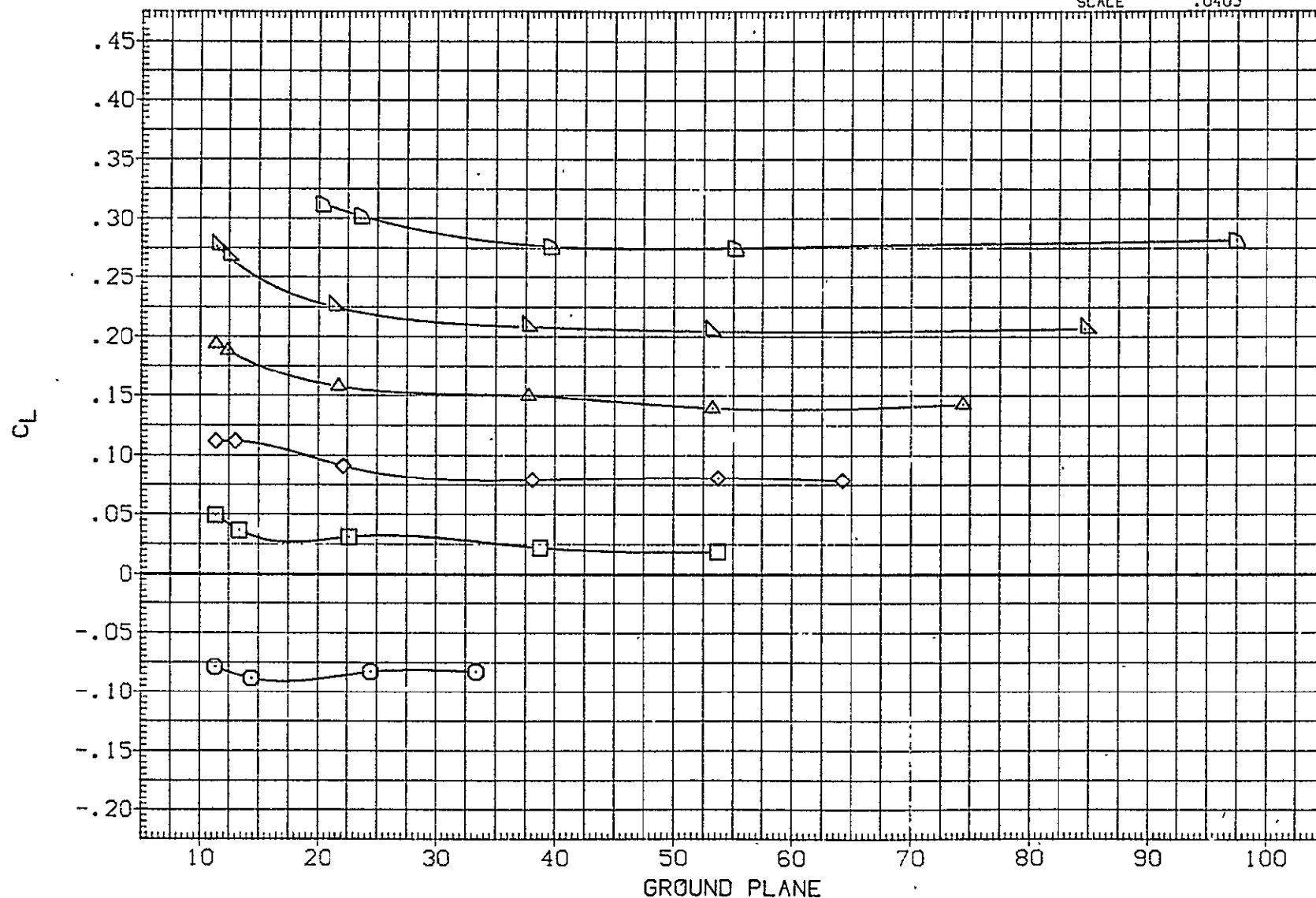


FIG 277 FERRY CON. IN GROUND PROXIMITY, HORIZ OFF, FLAPS 20 IORB=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS



| DATA SET | SYMBOL | CONFIGURATION | DESCRIPTION | ALPHA  | IO RB | BD FLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|---------------|-------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF482) | ○      | (CA-8)        | K3.1TS7     | .145   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF483) | □      | (CA-8)        | K3.1TS7     | 4.103  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF484) | ◇      | (CA-8)        | K3.1TS7     | 6.140  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF485) | △      | (CA-8)        | K3.1TS7     | 8.130  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF486) | ▽      | (CA-8)        | K3.1TS7     | 10.130 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF487) | ◻      | (CA-8)        | K3.1TS7     | 12.185 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |               |             |        |       |         |        |                       | SCALE     | .0405 |

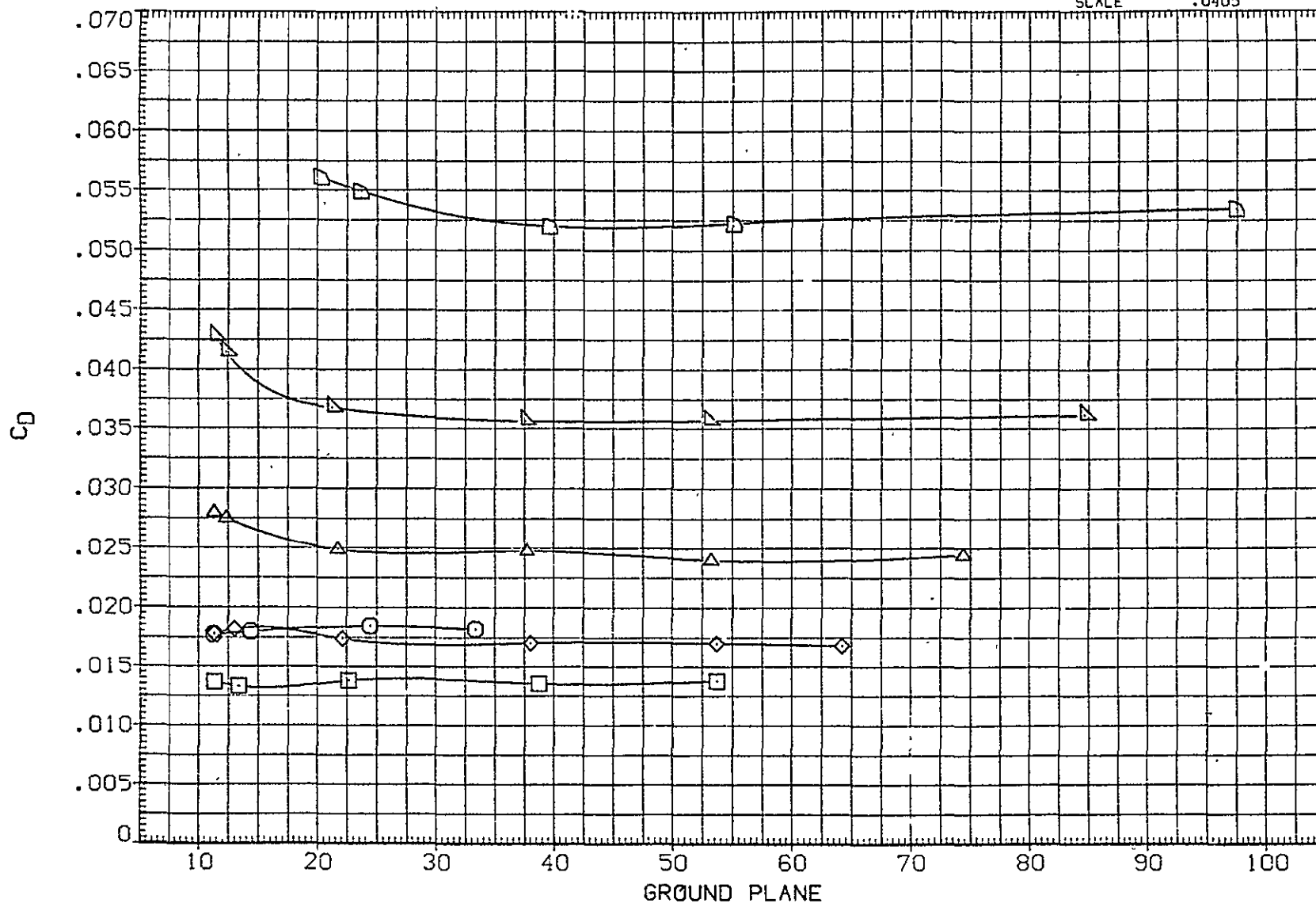


FIG 277 FERRY CON. IN GROUND PROXIMITY, HORIZ OFF, FLAPS 20 IO RB=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA <sub>W</sub> | I <sub>ORB</sub> | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------------------|------------------|---------|--------|-----------------------|-----------|-------|
| (TJF482) | ○      | (CA-8) K3.1TS7 F20TS40165.3.5 | .145               | 6.000            | -11.700 | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF483) | □      | (CA-8) K3.1TS7 F20TS40165.3.5 | 4.103              | 6.000            | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF484) | ◇      | (CA-8) K3.1TS7 F20TS40165.3.5 | 6.140              | 6.000            | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF485) | △      | (CA-8) K3.1TS7 F20TS40165.3.5 | 8.130              | 6.000            | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF486) | ▽      | (CA-8) K3.1TS7 F20TS40165.3.5 | 10.130             | 6.000            | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF487) | ◻      | (CA-8) K3.1TS7 F20TS40165.3.5 | 12.185             | 6.000            | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                               |                    |                  |         |        | SCALE                 | .0405     |       |

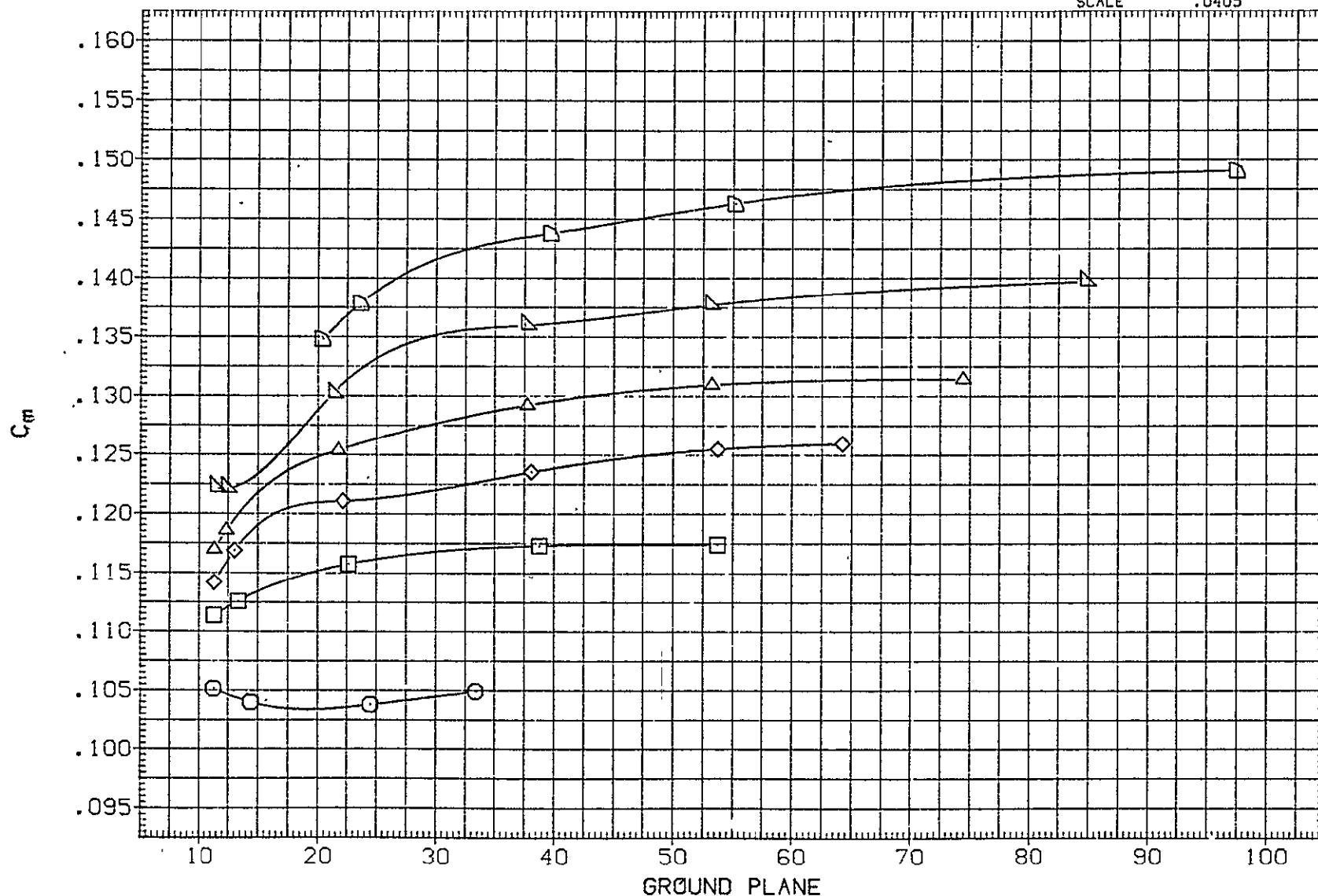


FIG 277 FERRY CON. IN GROUND PROXIMITY, HORIZ OFF. FLAPS 20 IORB=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF476) | □      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | .160   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF477) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 4.122  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF478) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 6.123  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF479) | ▽      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 8.107  | 6.000 | -11.700 | -5.000 | XMRF                  | 1109.0000 | IN.X0 |
| (TJF480) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 10.145 | 6.000 | -11.700 | -5.000 | YMRF                  | .0000     | IN.Y0 |
| (TJF481) | □      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 12.153 | 6.000 | -11.700 | -5.000 | ZMRF                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

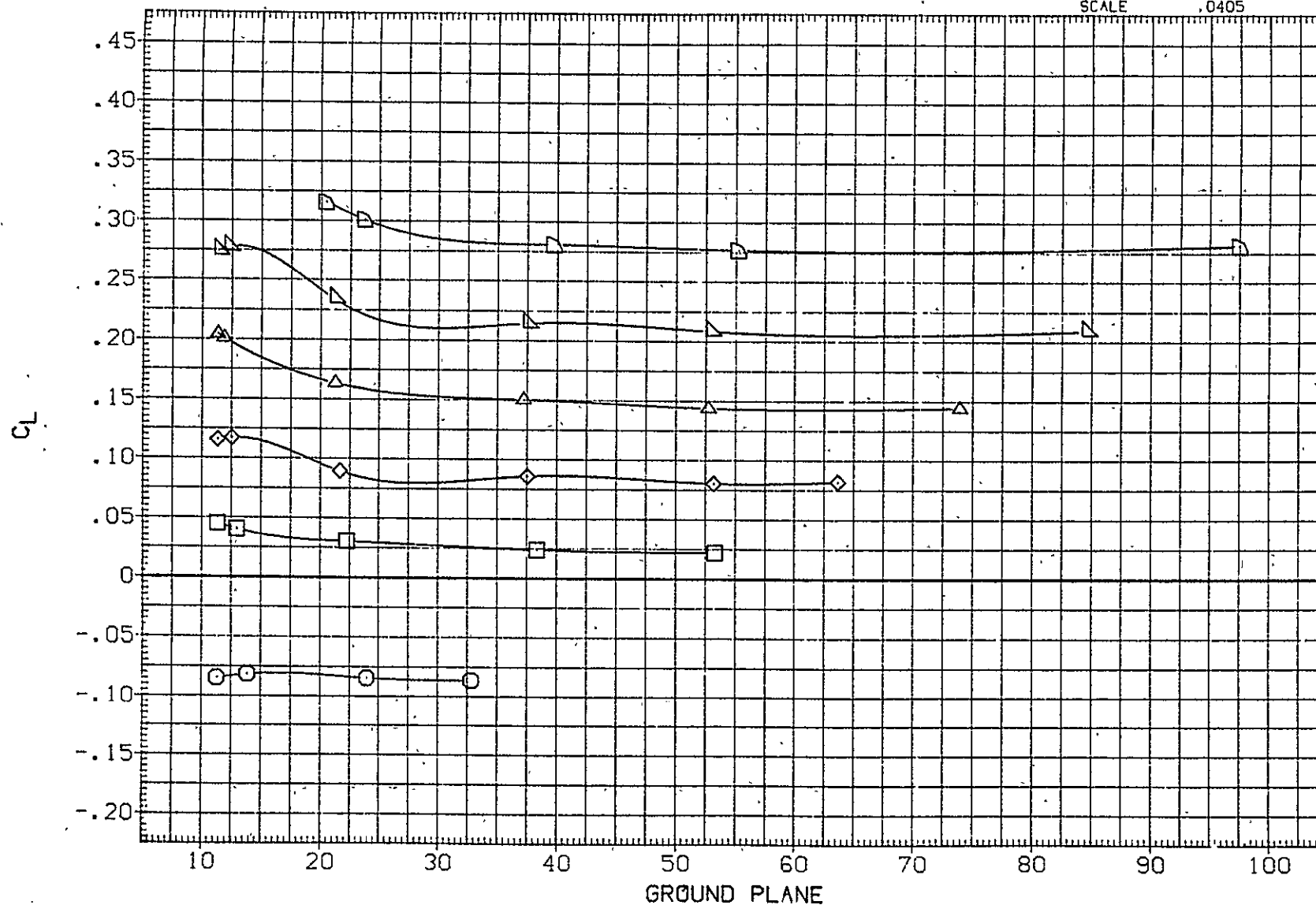


FIG 278 FERRY CON. IN GROUND PROXIMITY, STAB = 2. FLAPS 20. IORB=6. TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------------------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF476) | ○      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | .160               | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF477) | □      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 4.122              | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF478) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 6.123              | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF479) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 8.107              | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF480) | ▽      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 10.145             | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF481) | ◻      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 12.153             | 6.000 | -11.700 | -5.000 | ZMPP                  | 375.0000  | IN.Z0 |
|          |        |                                     |                    |       |         |        | SCALE                 | .0405     |       |

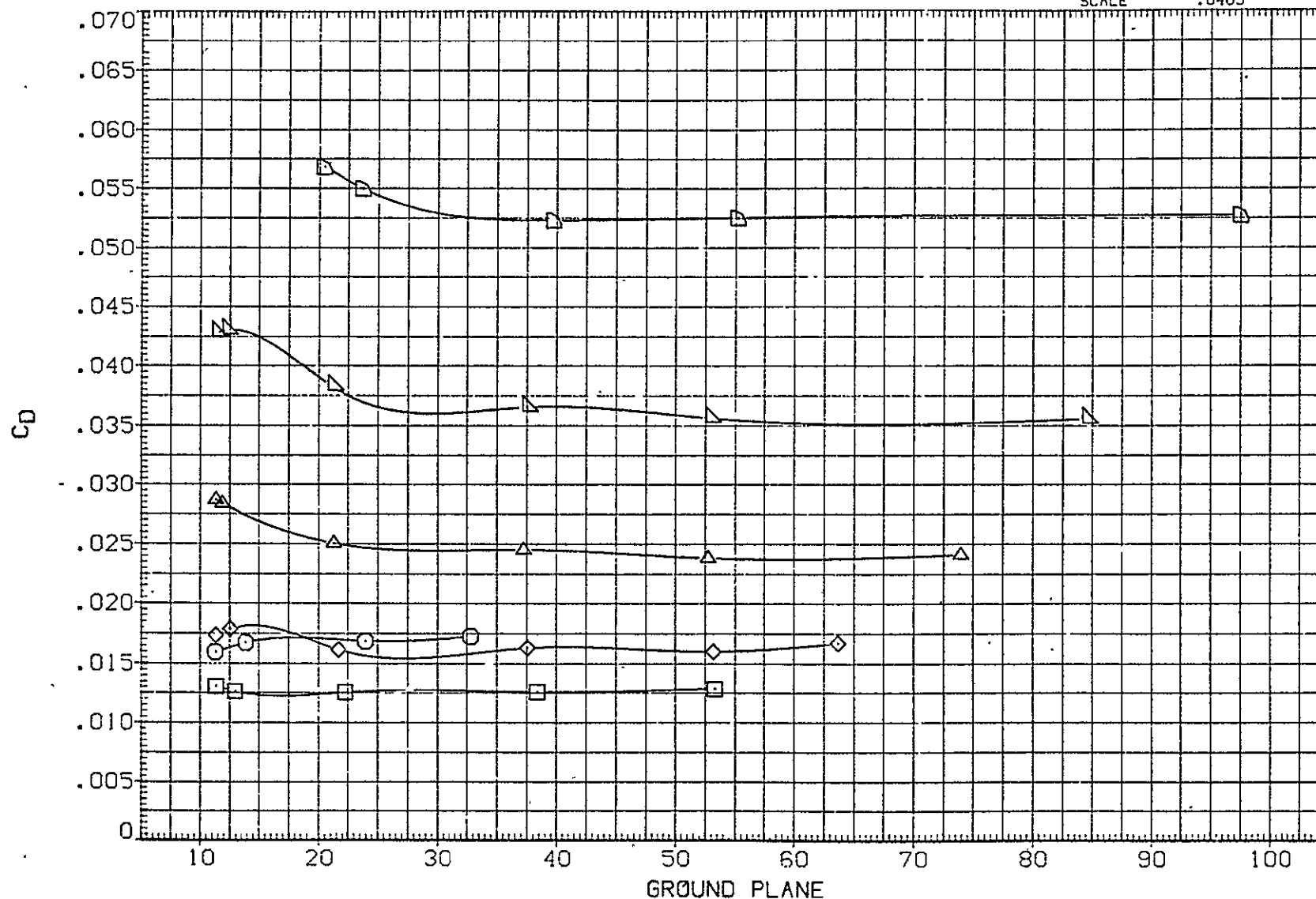


FIG 278 FERRY CON. IN GROUND PROXIMITY, STAB = 2, FLAPS 20. IORB=6. TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF476) | ○      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | .160   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SG, FT |
| (TJF477) | □      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 4.122  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF478) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 6.123  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF479) | △      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 8.107  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN, XU |
| (TJF480) | ▽      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 10.145 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN, Y0 |
| (TJF481) | ◻      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 12.153 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN, Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

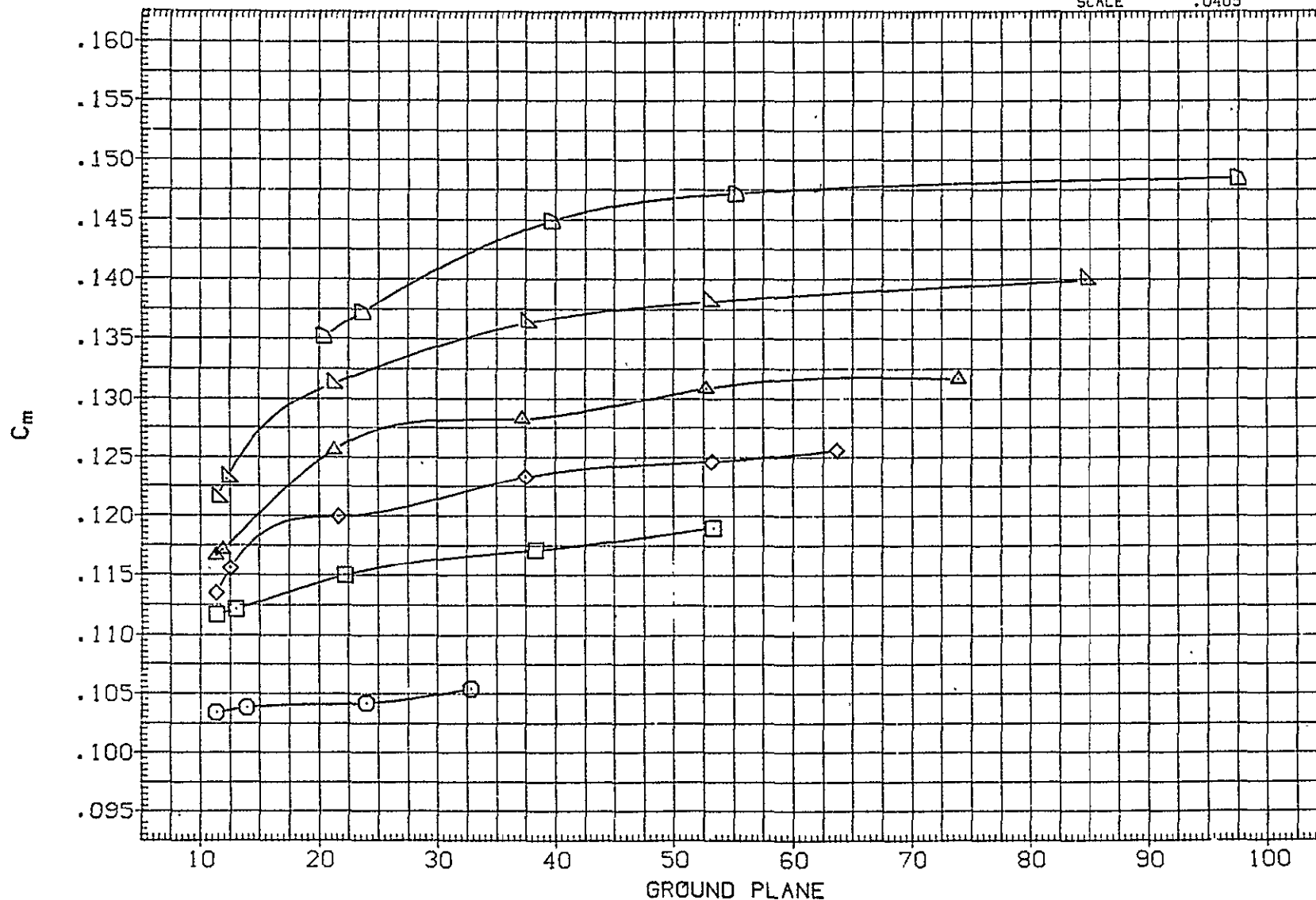


FIG 278 FERRY CON. IN GROUND PROXIMITY, STAB = 2, FLAPS 20, IORB=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF464) | □      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | .156   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF465) | □      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 4.137  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF466) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 6.138  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF467) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 8.126  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF468) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 10.114 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF469) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 12.137 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

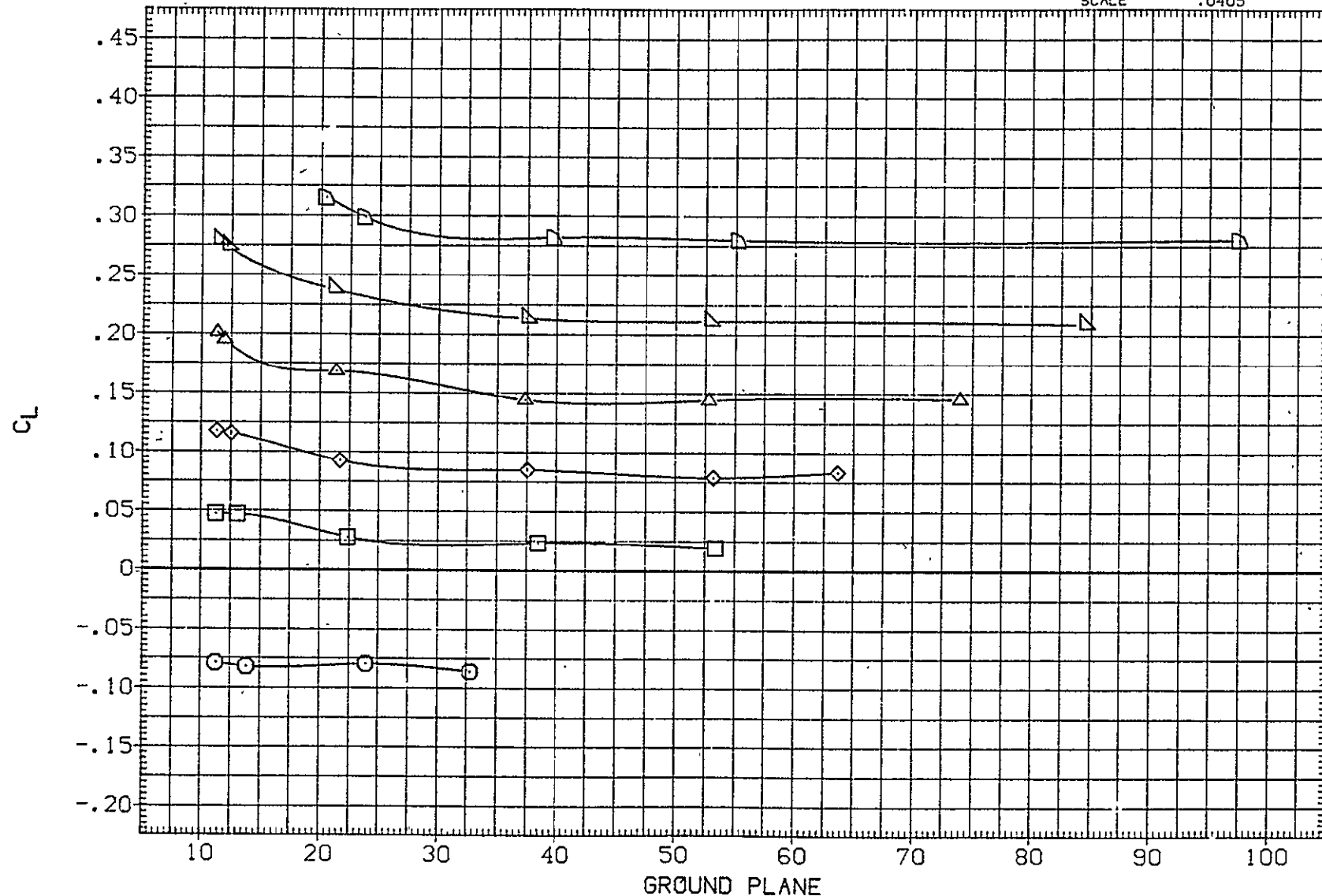


FIG 279 FERRY CON. IN GROUND PROXIMITY, STAB = 0, FLAPS 20, IORB=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | I <sup>ORB</sup> | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|------------------|---------|--------|-----------------------|-----------|-------|
| (TJF464) | □      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | .136   | 6.000            | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF465) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | 4.137  | 6.000            | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF466) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | 6.138  | 6.000            | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF467) | △      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | 8.126  | 6.000            | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF468) | △      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | 10.114 | 6.000            | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF469) | △      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | 12.137 | 6.000            | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |                  |         |        | SCALE                 | .0405     |       |

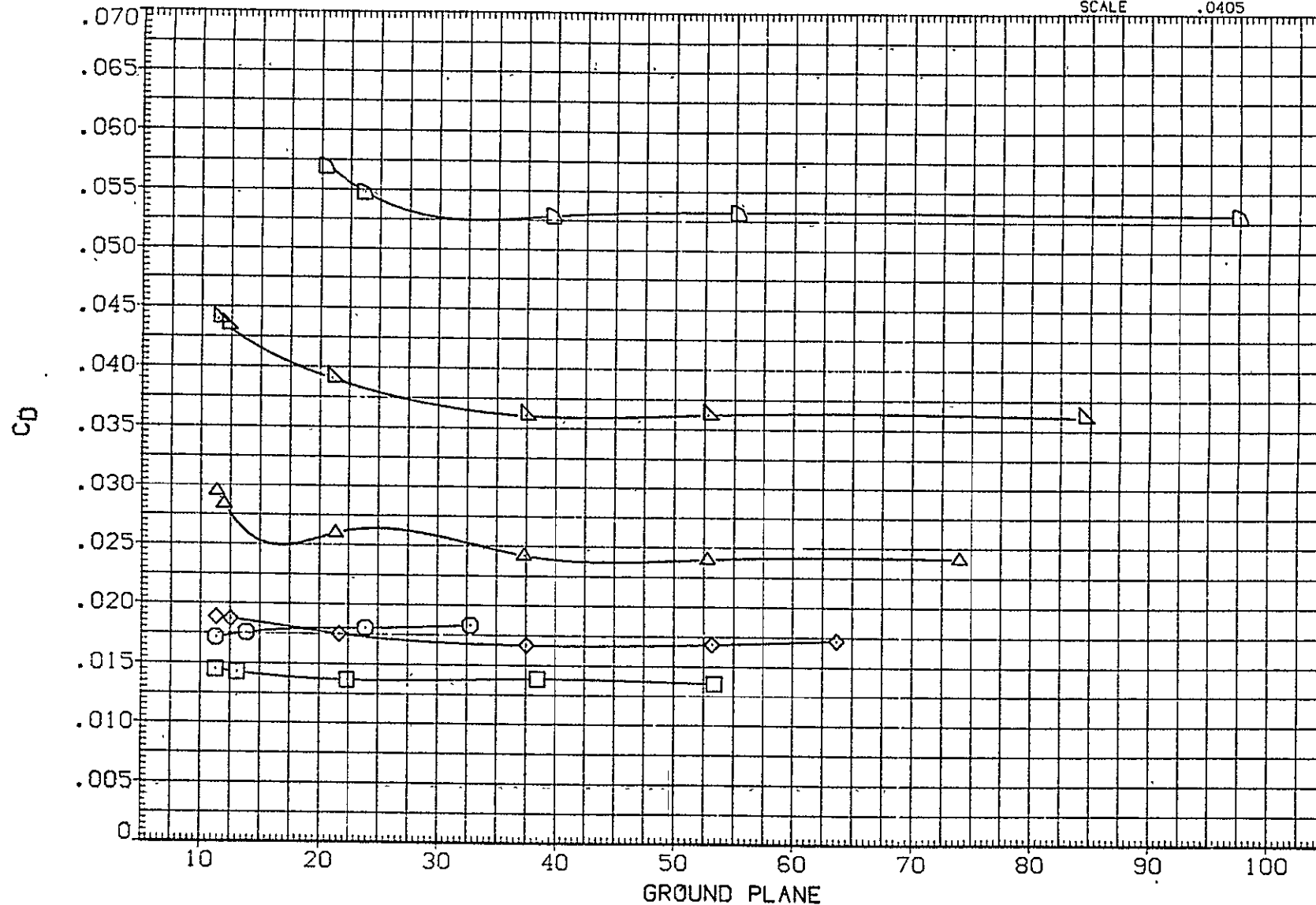


FIG 279 FERRY CON. IN GROUND PROXIMITY, STAB = 0, FLAPS 20, I<sup>ORB</sup>=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF464) | □      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | .156   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF465) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 4.137  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF466) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 6.138  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF467) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 8.126  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF468) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 10.114 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF469) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 12.137 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

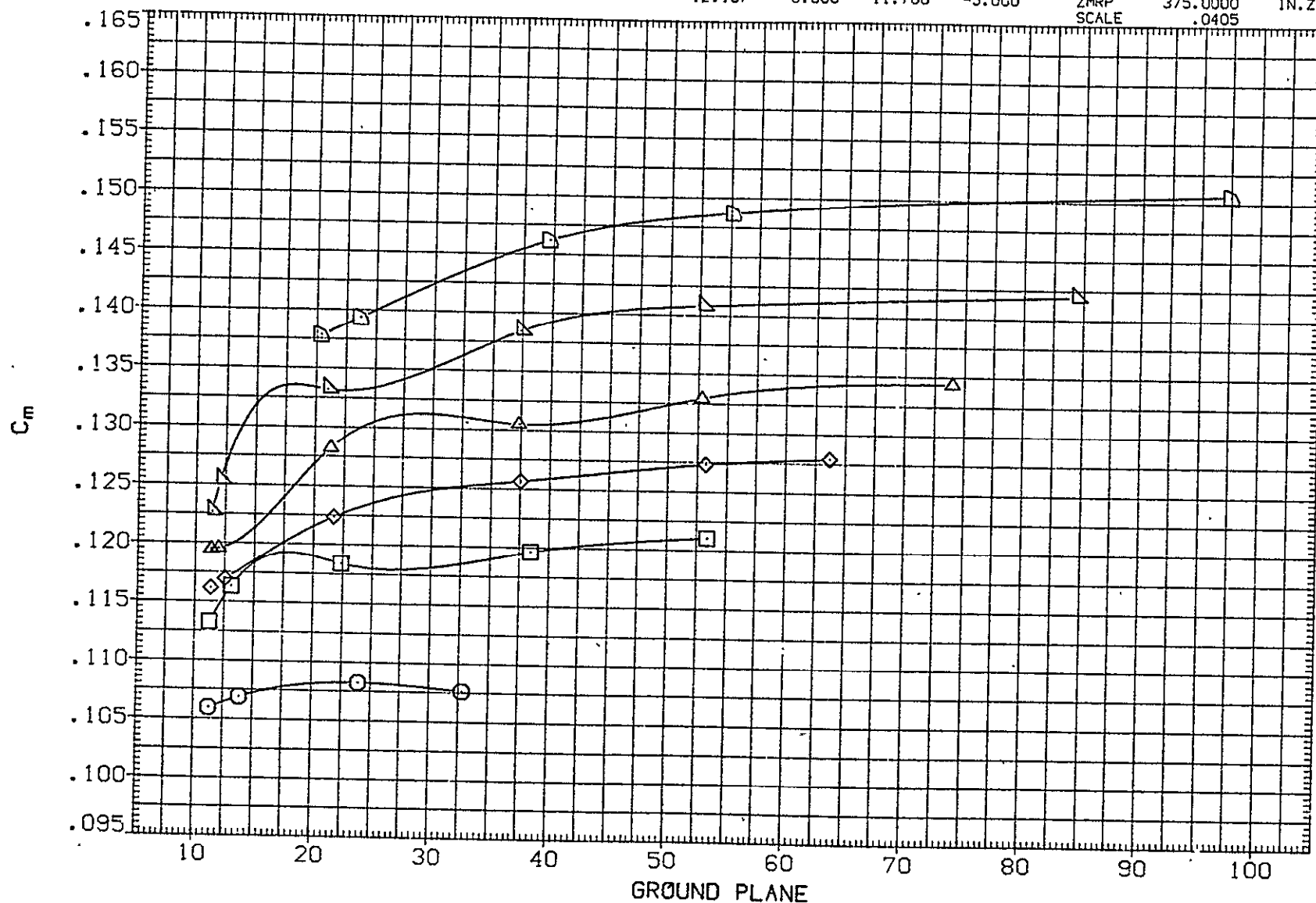


FIG 279 FERRY CON. IN GROUND PROXIMITY, STAB = 0, FLAPS 20, IORB=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF470) | ○      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | .211   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF471) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 4.154  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF472) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 6.134  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF473) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 8.145  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF474) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 10.110 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF475) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 12.143 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

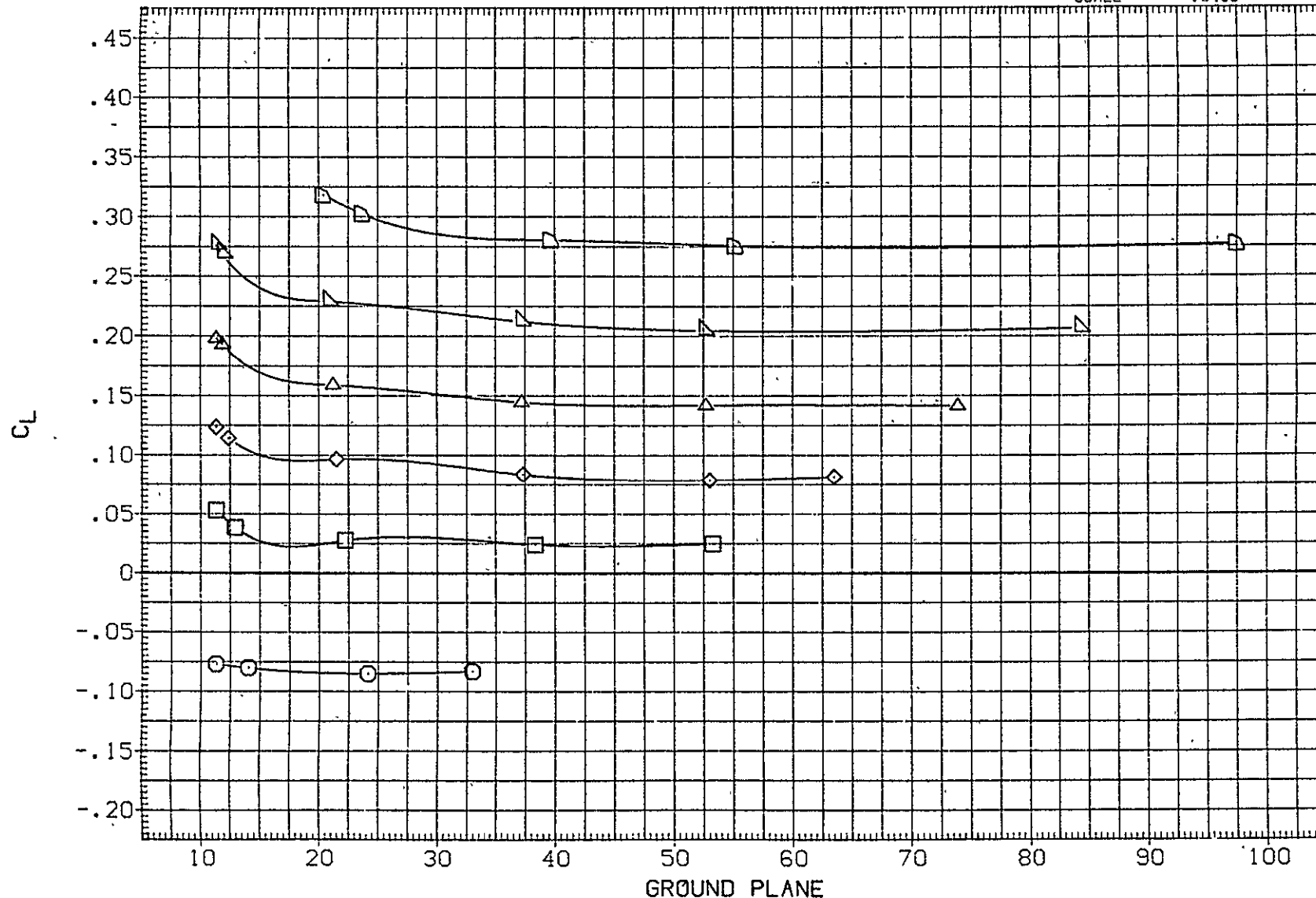


FIG 280 FERRY CON. IN GROUND PROXIMITY, STAB = -2, FLAPS 20, IORB=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF470) | ○      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | .211   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF471) | □      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 4.154  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF472) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 6.134  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF473) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 8.145  | 6.000 | -11.700 | -5.000 | XMRF                  | 1109.0000 | IN.X0 |
| (TJF474) | ▽      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 10.110 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF475) | ◻      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 12.143 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

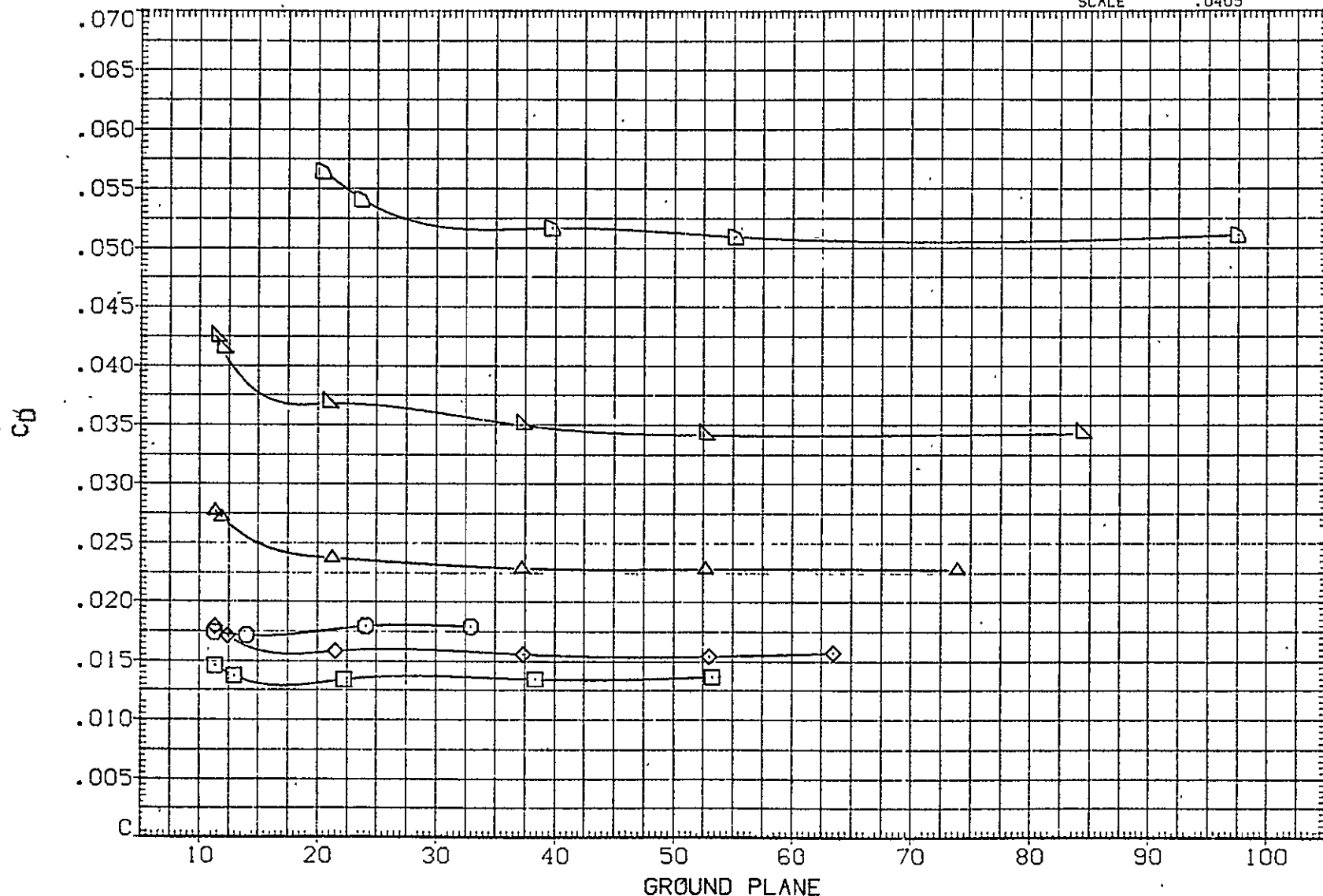


FIG 280 FERRY CON. IN GROUND PROXIMITY, STAB = -2, FLAPS 20, IORB=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------------------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF470) | □      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | .211               | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF471) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 4.154              | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF472) | △      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 8.134              | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF473) | ▽      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 8.145              | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF474) | △      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 10.110             | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF475) | ▽      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 12.143             | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |                    |       |         |        | SCALE                 | .0405     |        |

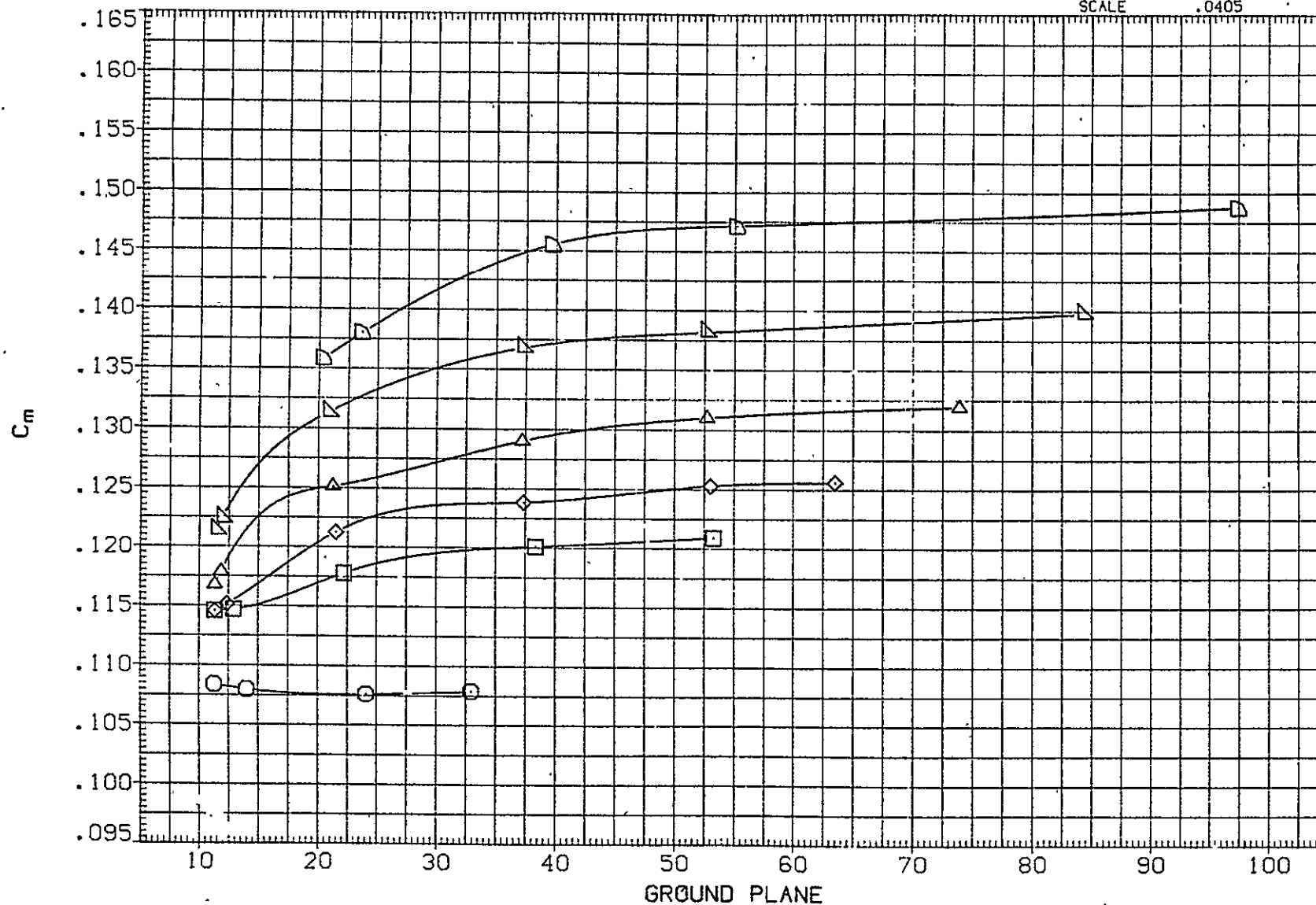


FIG 280 FERRY CON. IN GROUND PROXIMITY, STAB = -2, FLAPS 20, IORB=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF488) | ○      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | .166   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF489) | □      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 4.115  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF490) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 6.174  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF491) | △      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 8.145  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF492) | ▽      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 10.122 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF493) | ◻      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 12.184 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

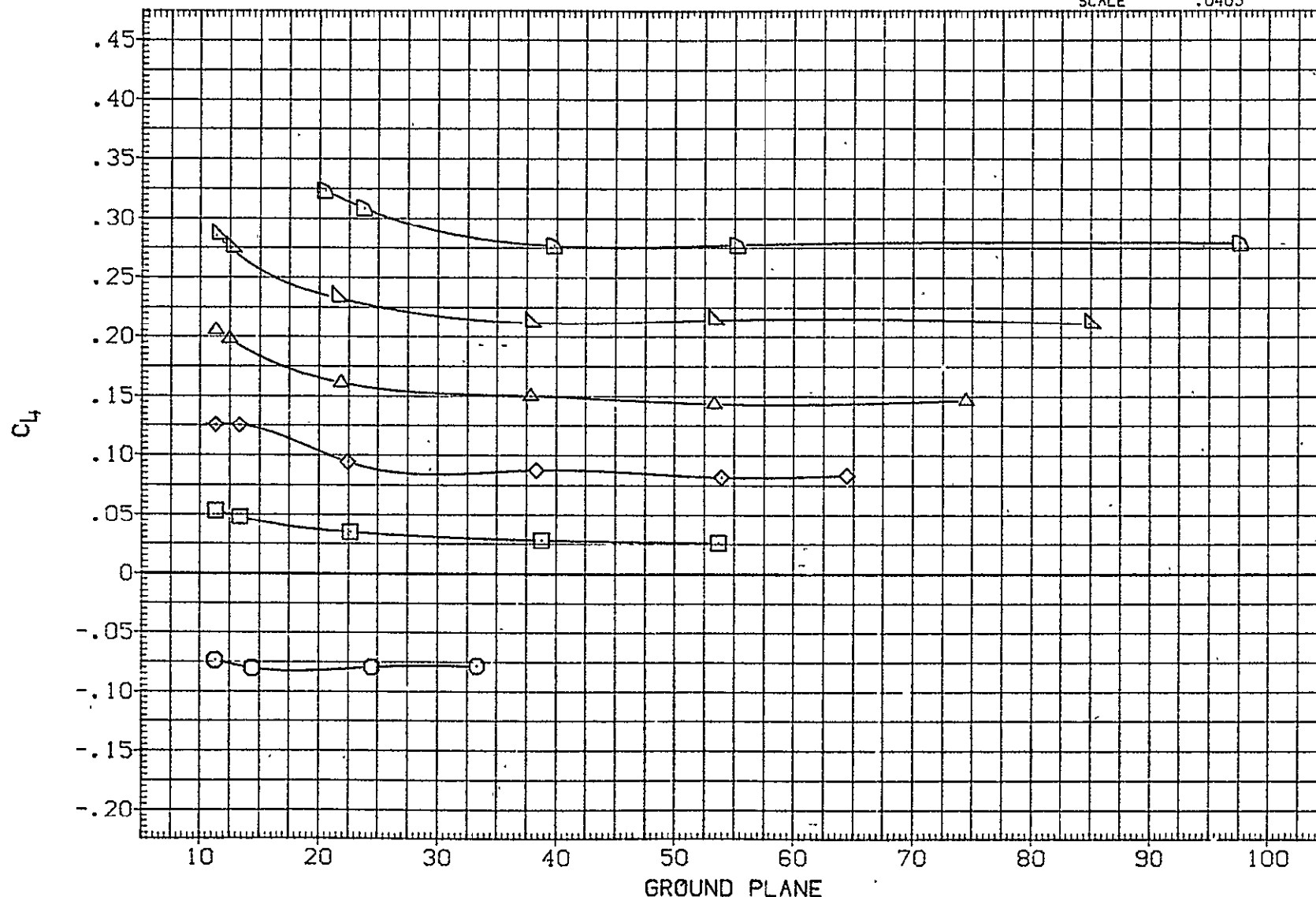


FIG 281 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR= 17, IORB=6, TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF488) | □      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | .166   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF489) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 4.115  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF490) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 6.174  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF491) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 8.145  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF492) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 10.122 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF493) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 12.184 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

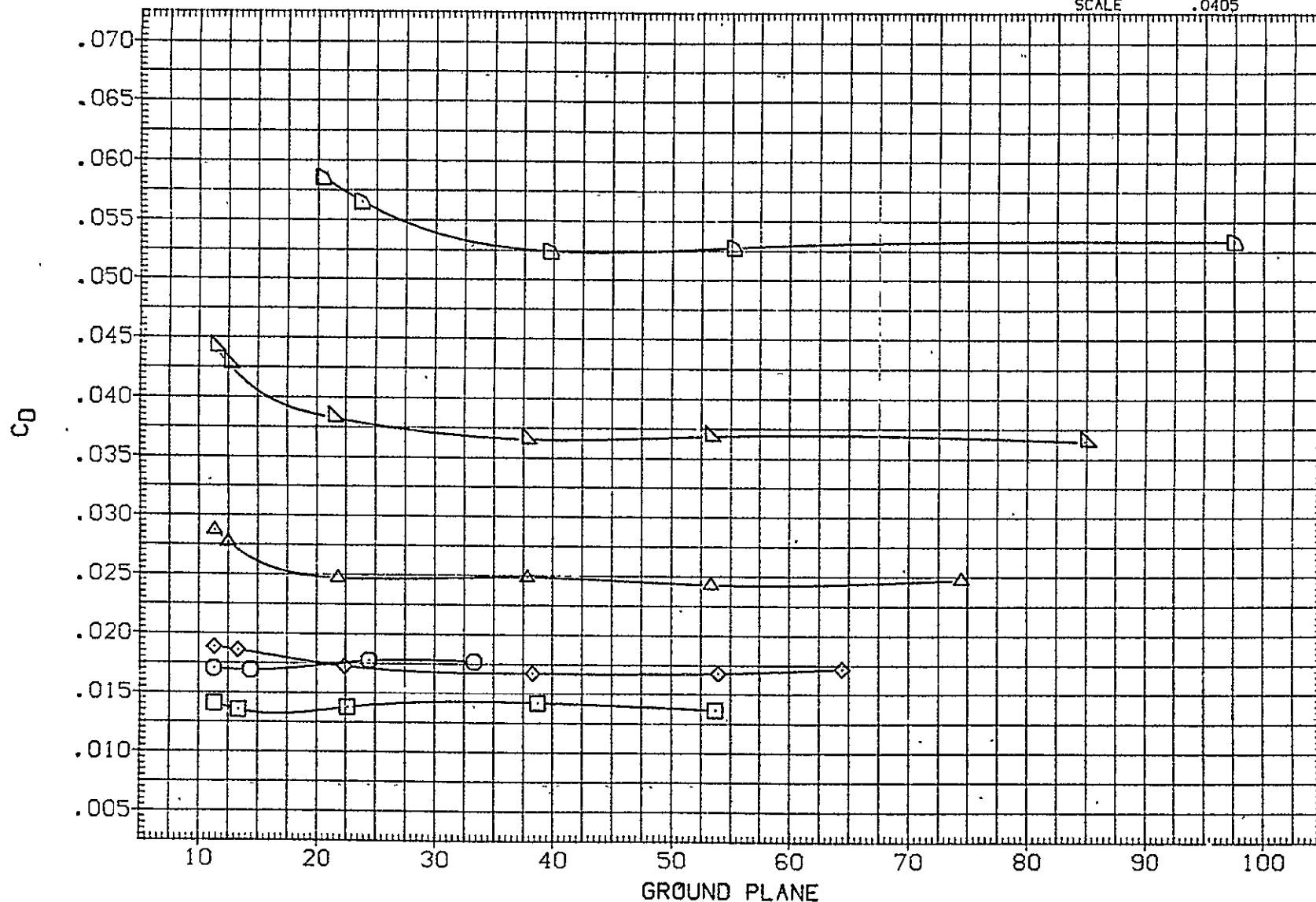


FIG 281 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR= 17, IORB=6. TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BOFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF488) | ○      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | .166   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF489) | □      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | 4.115  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF490) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | 6.174  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF491) | △      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | 8.145  | 6.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF492) | ▽      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | 10.122 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF493) | ◻      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | 12.184 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

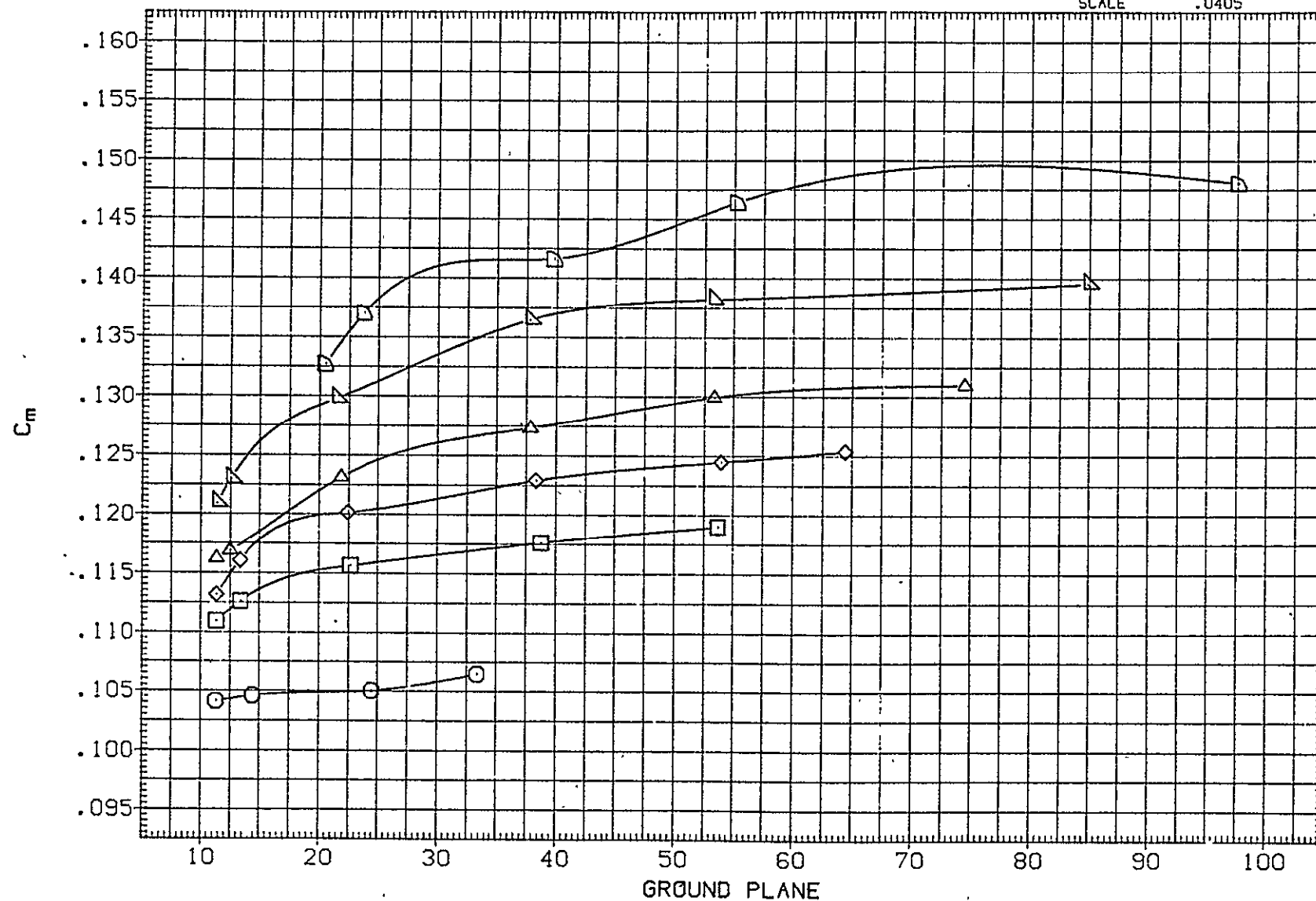


FIG 281 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR= 17, IORB=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF494) | ○      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | .161   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF495) | □      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | 4.131  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF496) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | 6.129  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF497) | △      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | 8.125  | 6.000 | -11.700 | -5.000 | XMPP                  | 1109.0000 | IN.X0 |
| (TJF498) | ▽      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | 10.133 | 6.000 | -11.700 | -5.000 | YMPP                  | .0000     | IN.Y0 |
| (TJF499) | ◻      | (CA-8) K3.1TS7H15.6.1F20TS40165.3.5 | 12.146 | 6.000 | -11.700 | -5.000 | ZMPP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

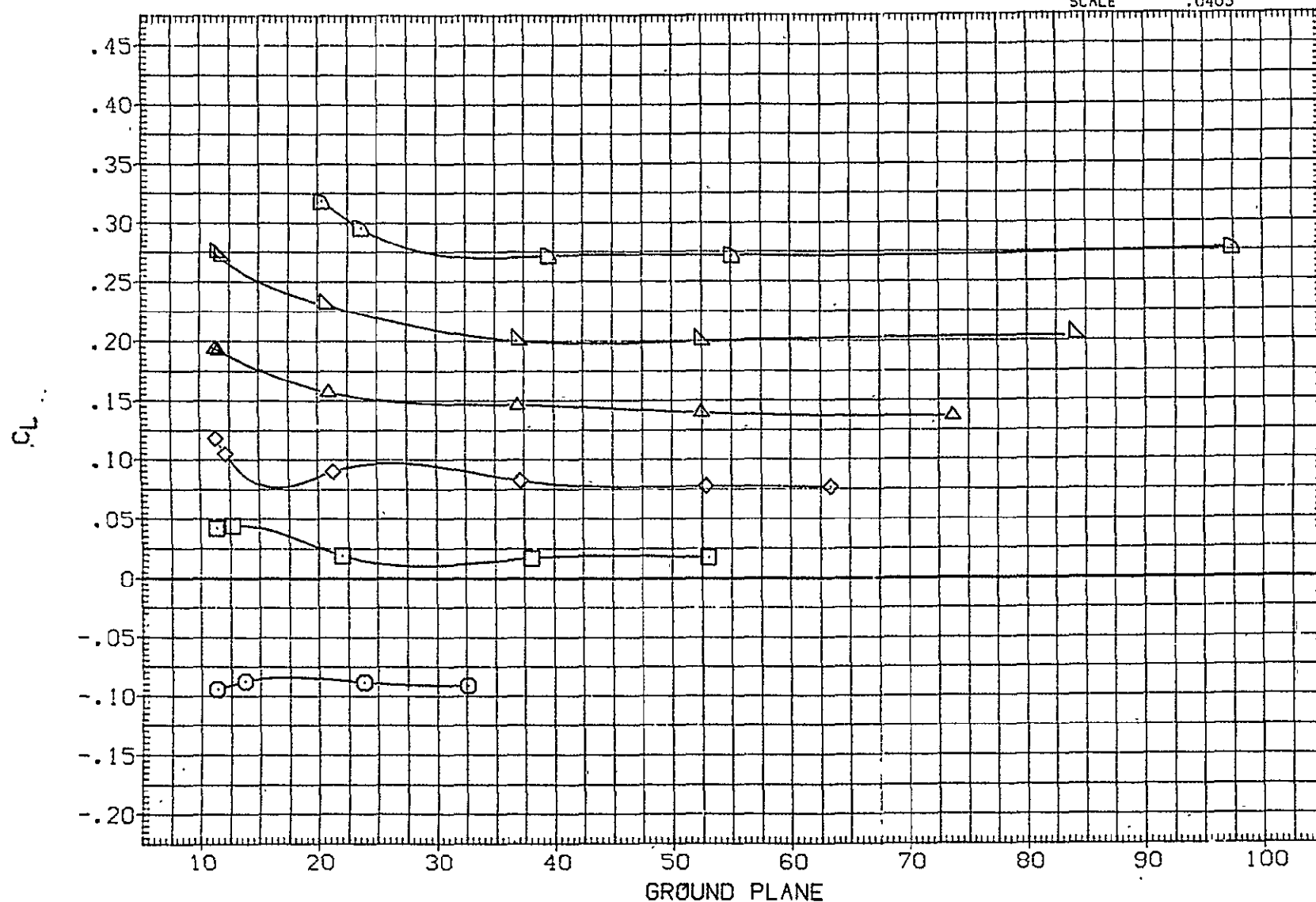


FIG 282 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

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REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | I <sub>ORB</sub> | BD <sub>FLAP</sub> | ELEV <sub>ON</sub> | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------------------|------------------|--------------------|--------------------|-----------------------|-----------|--------|
| (TJF494) | ○      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | .161               | 6.000            | -11.700            | -5.000             | SREF                  | 2690.0000 | 90. FT |
| (TJF495) | □      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 4.131              | 6.000            | -11.700            | -5.000             | LREF                  | 474.8100  | IN.    |
| (TJF496) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 6.129              | 6.000            | -11.700            | -5.000             | BREF                  | 936.6800  | IN.    |
| (TJF497) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 8.125              | 6.000            | -11.700            | -5.000             | XMRP                  | 1109.0000 | IN. X0 |
| (TJF498) | ▽      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 10.133             | 6.000            | -11.700            | -5.000             | YMRP                  | .0000     | IN. Y0 |
| (TJF499) | ▷      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 12.146             | 6.000            | -11.700            | -5.000             | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |                    |                  |                    |                    | SCALE                 | .0405     |        |

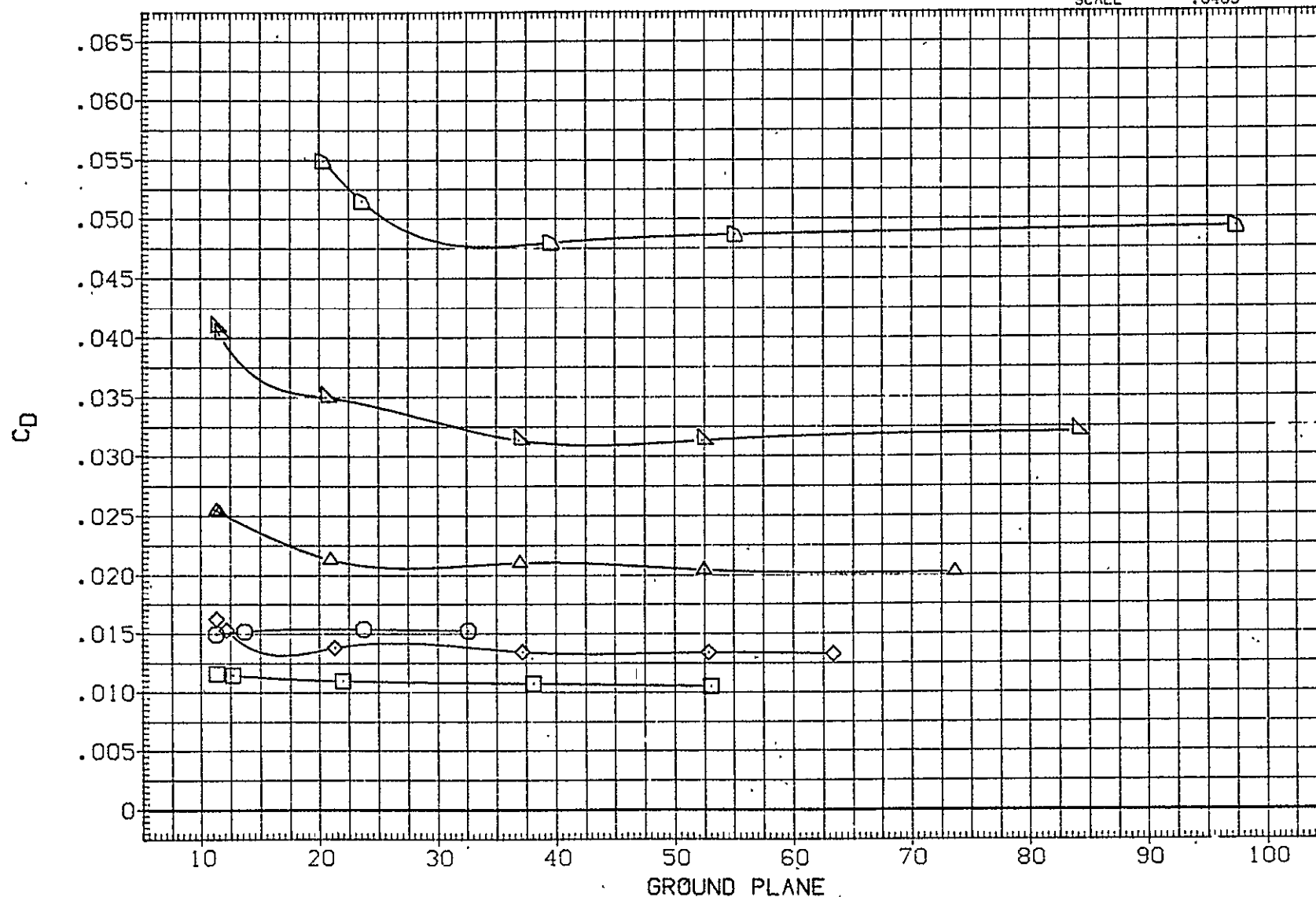


FIG 282 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, I<sub>ORB</sub>=6, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF494) | □      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | .161   | 6.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF495) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 4.131  | 6.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF496) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 6.129  | 6.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF497) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 8.125  | 6.000 | -11.700 | -5.000 | XMRF                  | 1109.0000 | IN. X0 |
| (TJF498) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 10.133 | 6.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF499) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 12.146 | 6.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

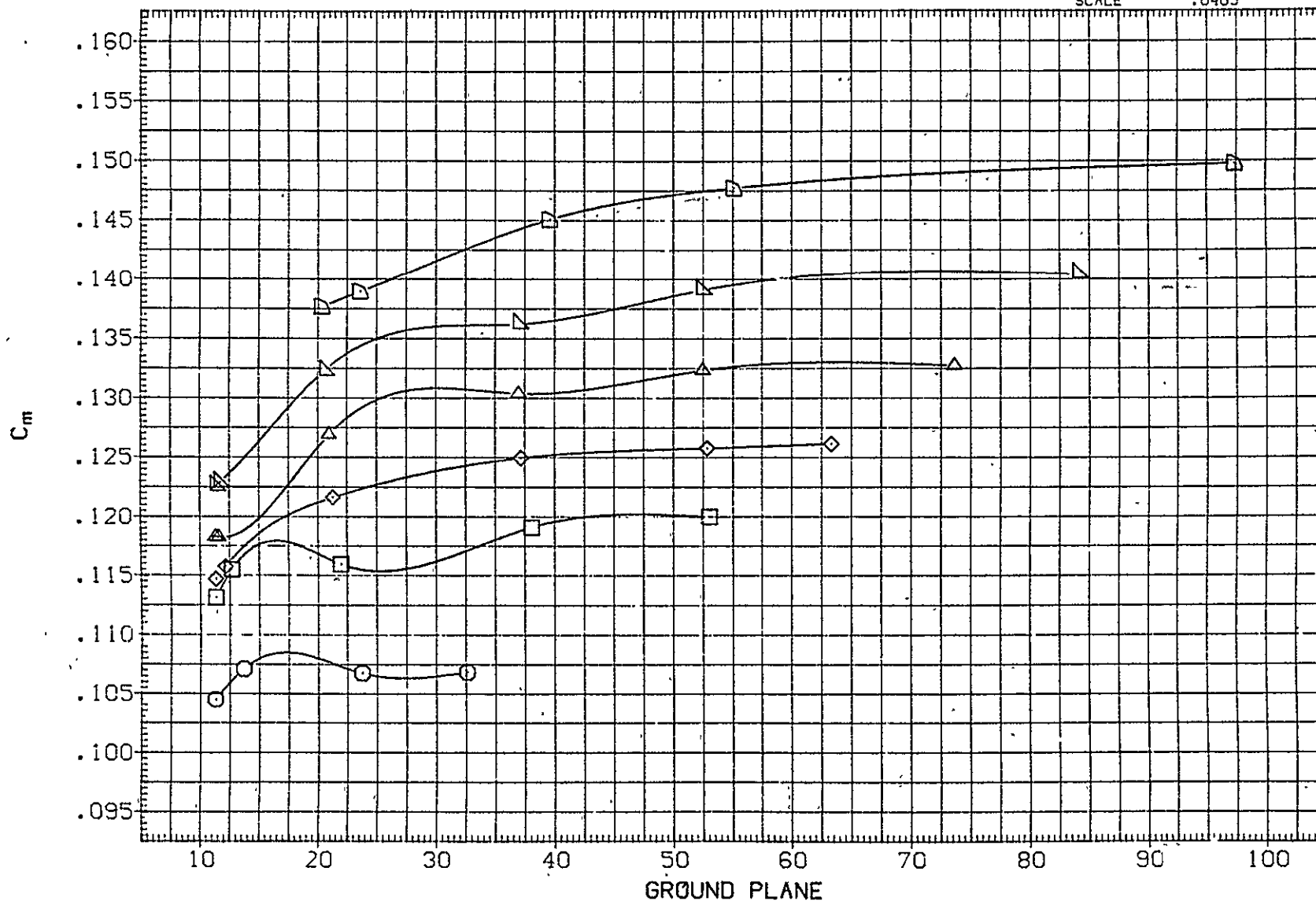


FIG 282 FERRY CON. IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=6, TC ON ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF351) | ○      | (CA-8) K3.1TS7 F10TS40265.3.5 | .239   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF352) | □      | (CA-8) K3.1TS7 F10TS40265.3.5 | 4.108  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF353) | ◇      | (CA-8) K3.1TS7 F10TS40265.3.5 | 6.177  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF354) | △      | (CA-8) K3.1TS7 F10TS40265.3.5 | 8.175  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF355) | ▽      | (CA-8) K3.1TS7 F10TS40265.3.5 | 10.215 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF356) | ◻      | (CA-8) K3.1TS7 F10TS40265.3.5 | 12.152 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                               |        |       |        |        | SCALE                 | .0405     |       |

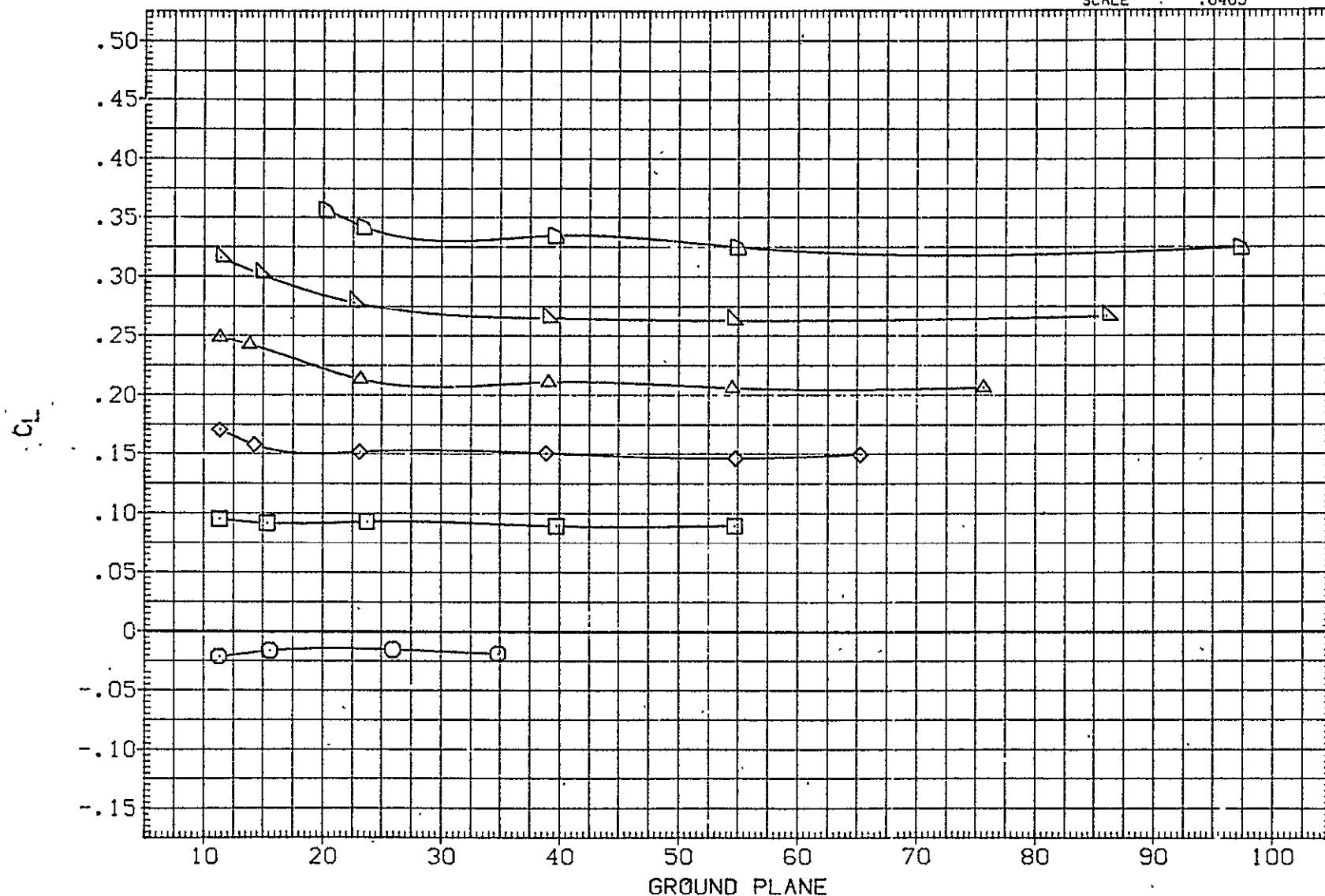


FIG 283 ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF, FLAPS 10, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS, WITH SUCTION PUMP

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF351) | ○      | (CA-8) K3.1TS7 F10TS40265.3.5 | .239   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF352) | □      | (CA-8) K3.1TS7 F10TS40265.3.5 | 4.108  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF353) | ◇      | (CA-8) K3.1TS7 F10TS40265.3.5 | 6.177  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF354) | △      | (CA-8) K3.1TS7 F10TS40265.3.5 | 8.175  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF355) | ▽      | (CA-8) K3.1TS7 F10TS40265.3.5 | 10.215 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF356) | ◇      | (CA-8) K3.1TS7 F10TS40265.3.5 | 12.152 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                               |        |       |        |        | SCALE                 | .0405     |       |

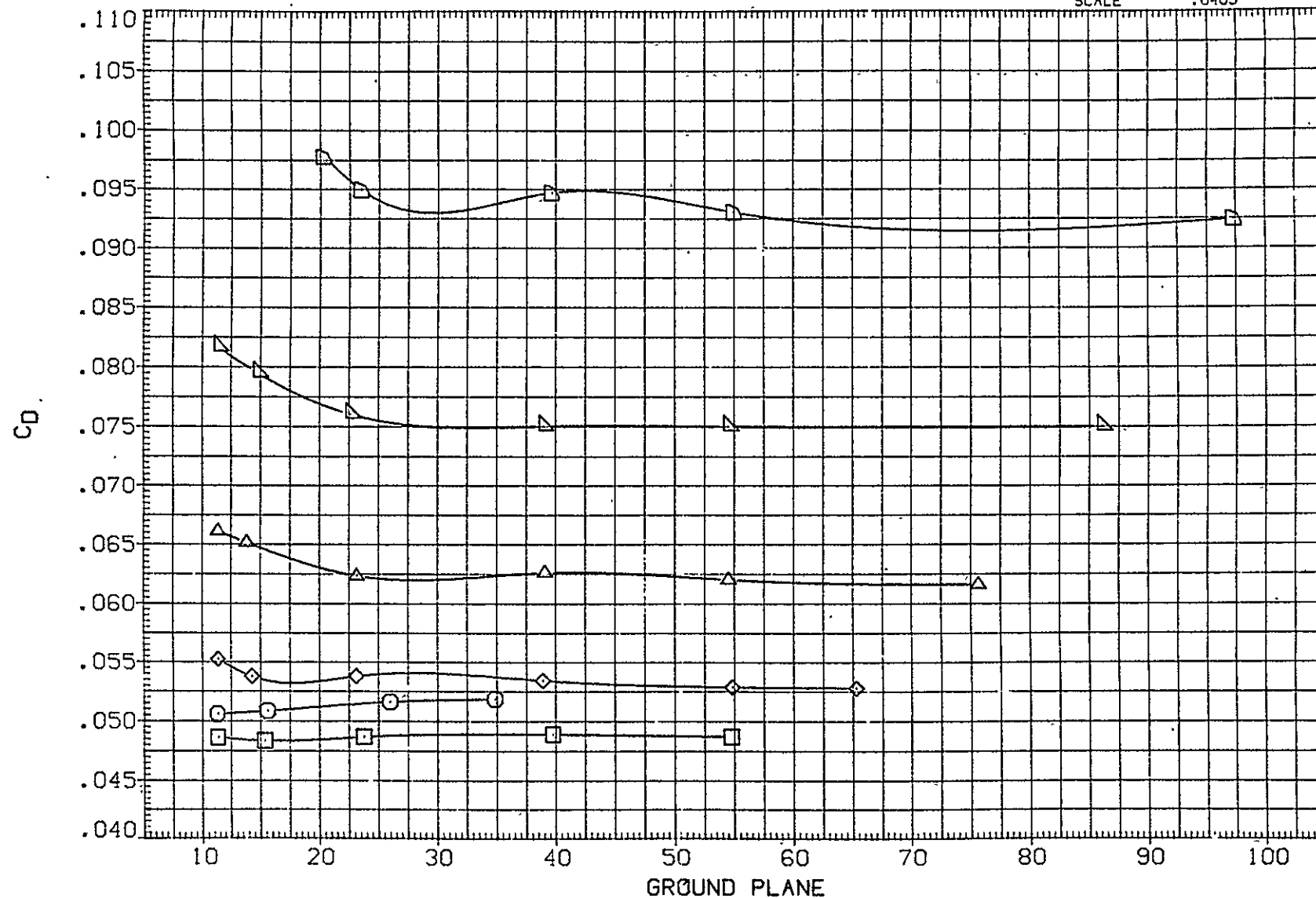


FIG 283 ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF, FLAPS 10, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS, WITH SUCTION PUMP

(A)MACH = .15

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REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF351) | ○      | (CA-8) K3.1TS7 F10TS40265.3.5 | .239   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF352) | □      | (CA-8) K3.1TS7 F10TS40265.3.5 | 4.108  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF353) | ◇      | (CA-8) K3.1TS7 F10TS40265.3.5 | 6.177  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF354) | △      | (CA-8) K3.1TS7 F10TS40265.3.5 | 8.175  | 6.000 | .000   | -5.000 | XMPP                  | 1109.0000 | IN.XO |
| (TJF355) | ▽      | (CA-8) K3.1TS7 F10TS40265.3.5 | 10.215 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.YO |
| (TJF356) | ◻      | (CA-8) K3.1TS7 F10TS40265.3.5 | 12.152 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                               |        |       |        |        | SCALE                 | .0405     |       |

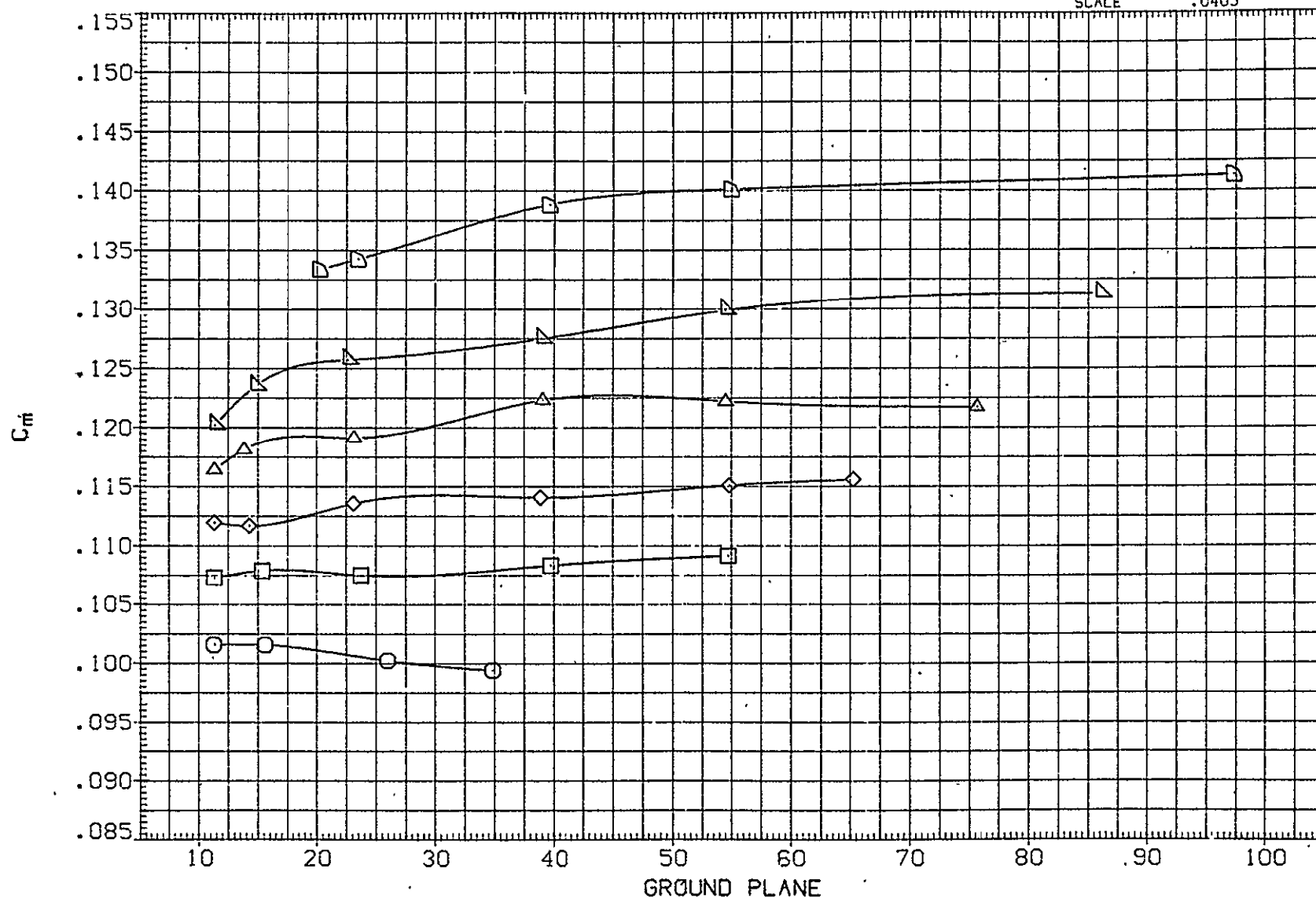


FIG 283 ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF, FLAPS 10, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS, WITH SUCTION PUMP

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|--------|
| (TJF345) | ○      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | .142   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF346) | □      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 4.102  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF347) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 6.145  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF348) | △      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 8.104  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF349) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 10.197 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF350) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 12.193 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |        |

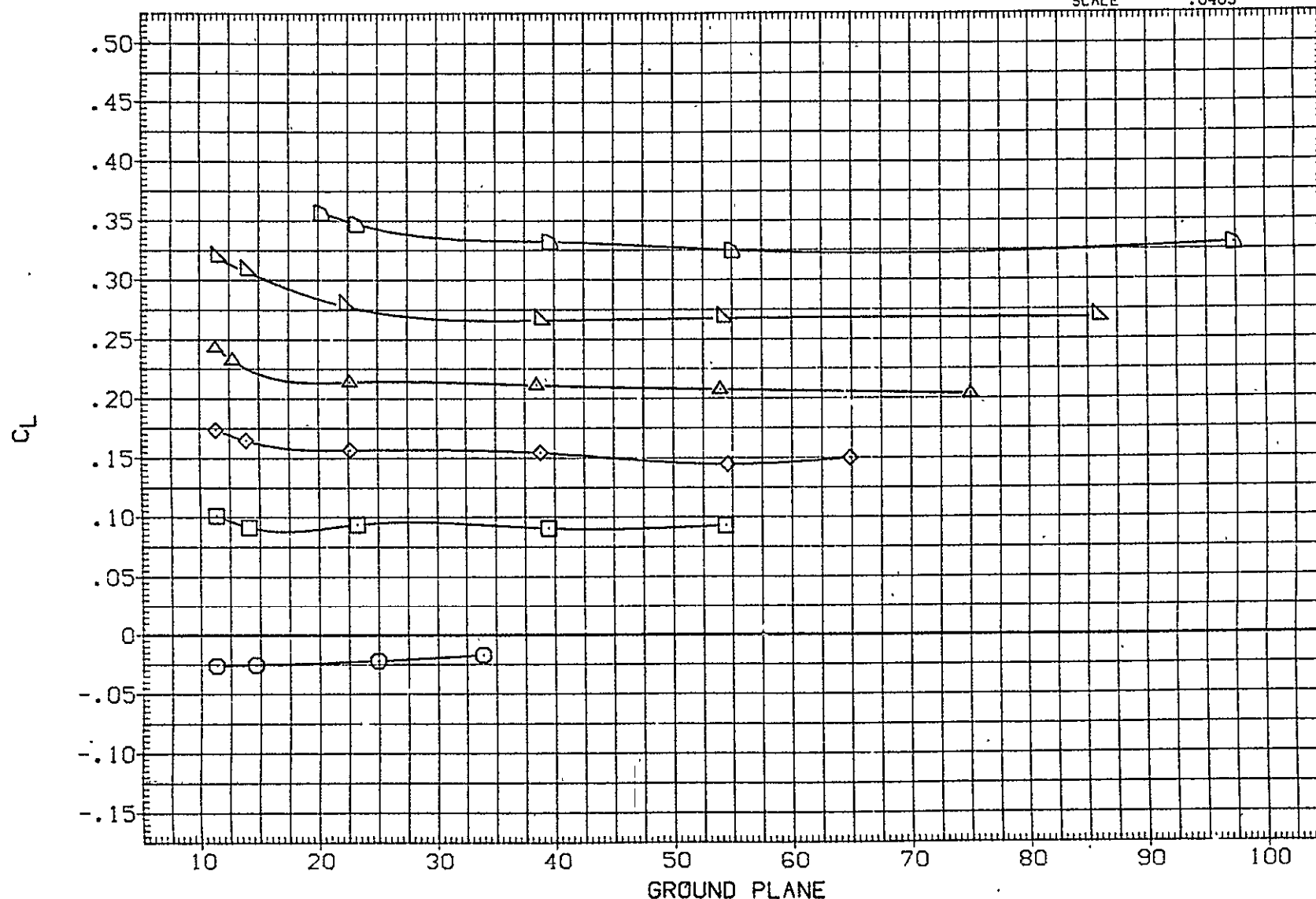


FIG 284 ALT CONFIG IN GROUND PROXIMITY, STAB = 4, FLAPS 10, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS, WITH SUCTION PUMP

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF345) | ○      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | .142   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF346) | □      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 4.102  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF347) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 6.145  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF348) | △      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 8.104  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF349) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 10.197 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF350) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 12.193 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

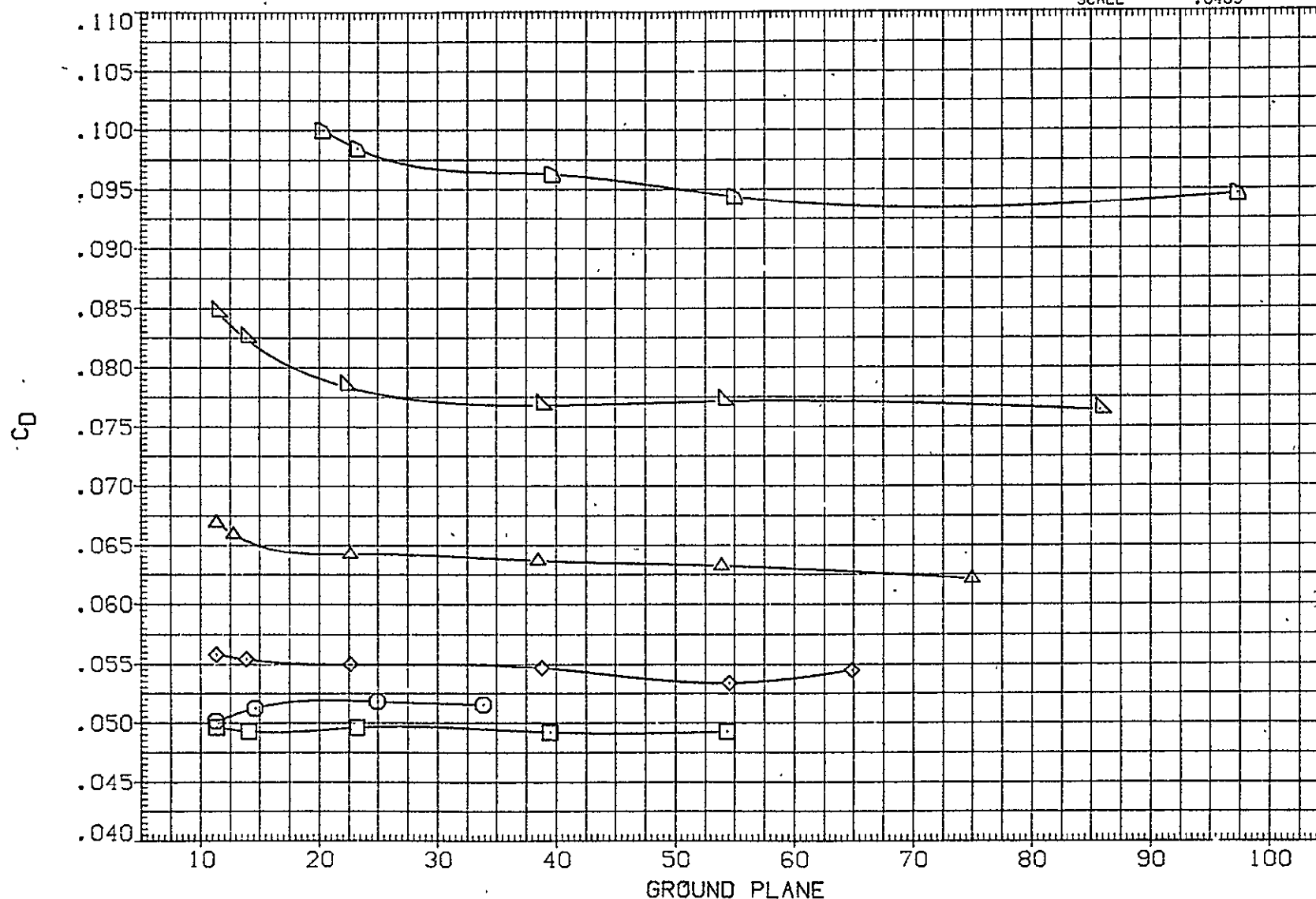


FIG 284 ALT CONFIG IN GROUND PROXIMITY, STAB = 4, FLAPS 10, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS, WITH SUCTION PUMP

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|--------|
| (TJF345) | ○      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | .142   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF346) | □      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 4.102  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF347) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 6.145  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF348) | △      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 8.104  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF349) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 10.197 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF350) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 12.193 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |        |

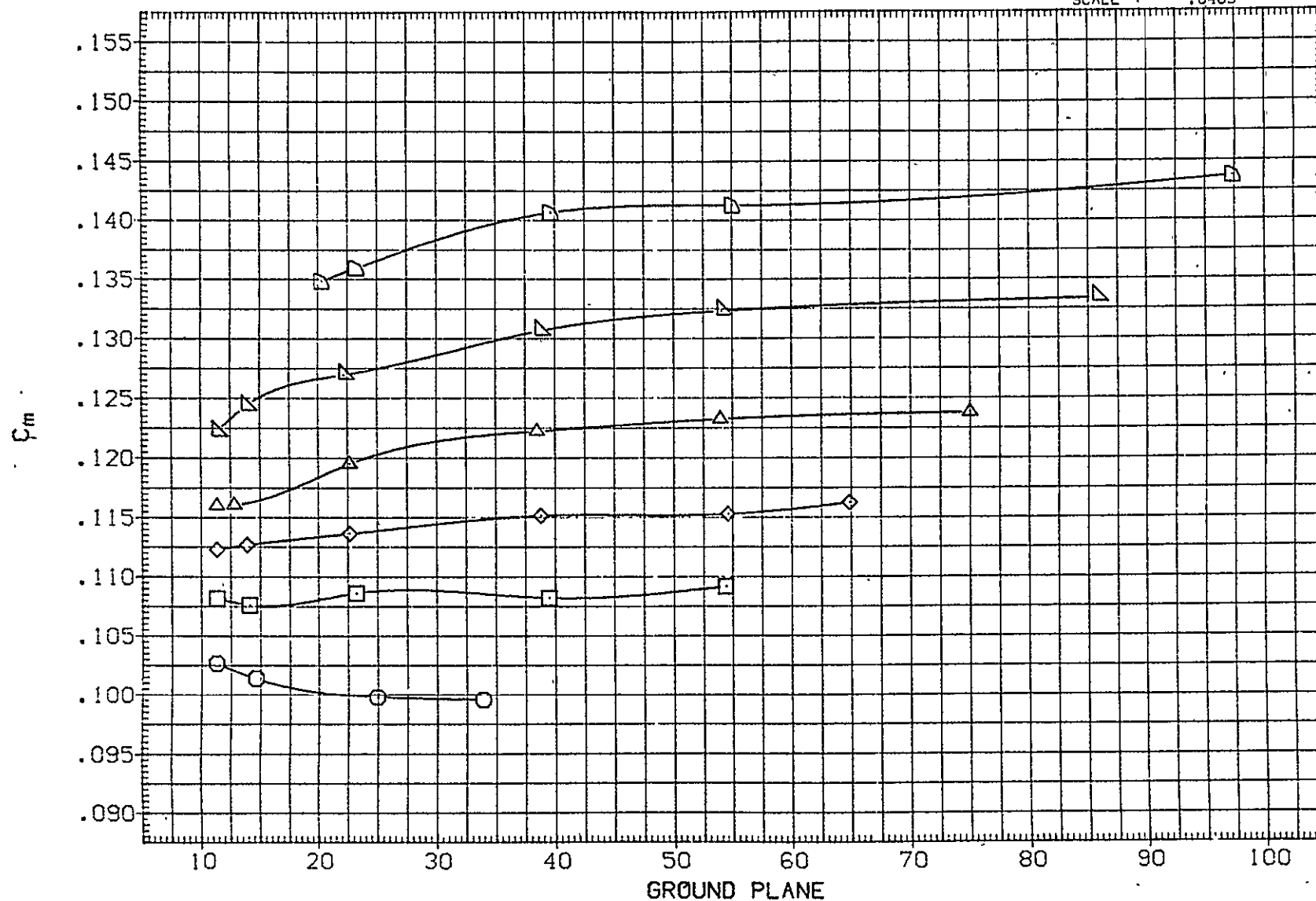


FIG 284 ALT CONFIG IN GROUND PROXIMITY, STAB = 4, FLAPS 10, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS, WITH SUCTION PUMP

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF333) | ○      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | .240   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF334) | □      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 4.003  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF335) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 6.127  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF336) | △      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 8.113  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF337) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 10.121 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF338) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 12.123 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

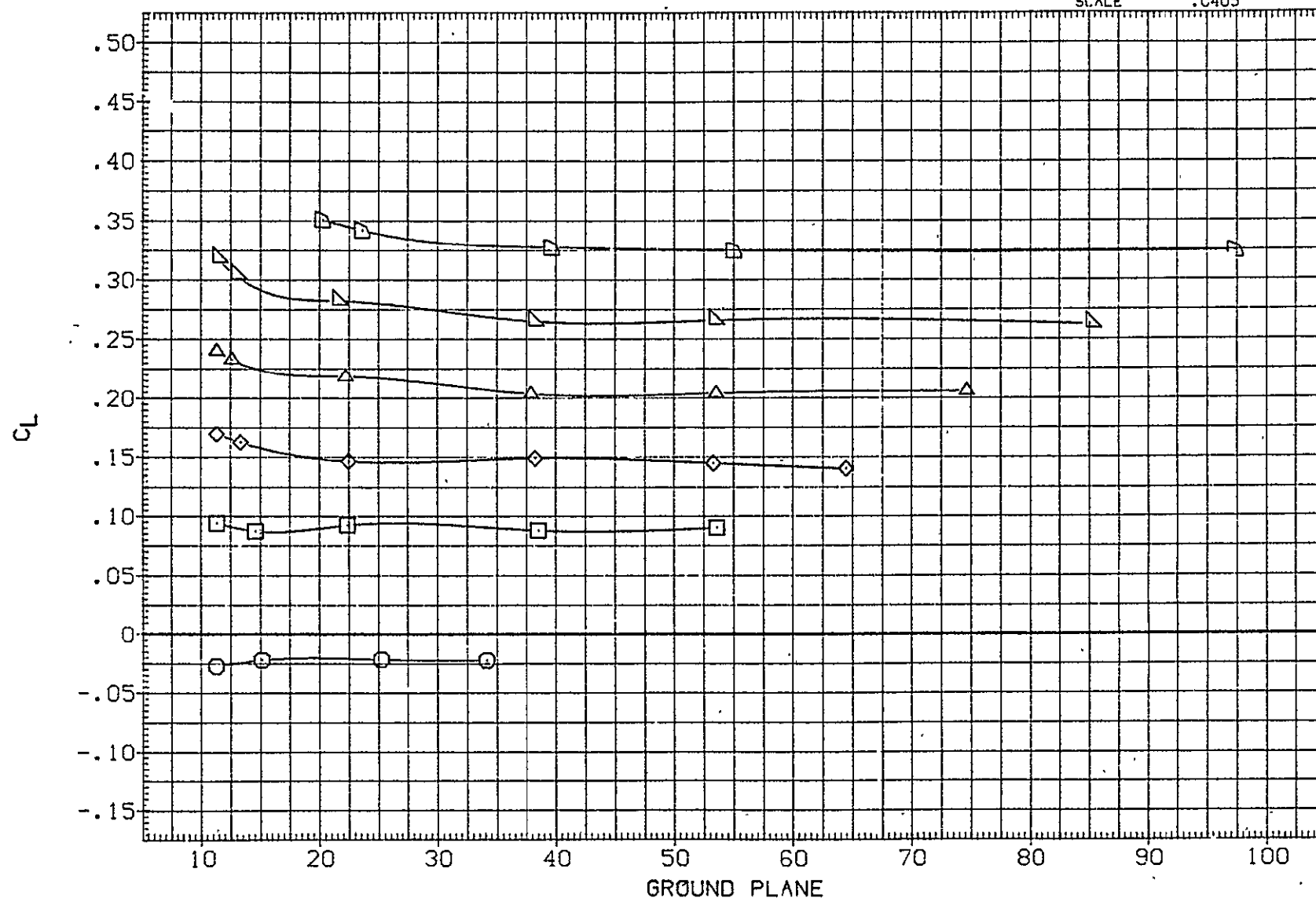


FIG 285 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, FLAPS 10, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS, WITH SUCTION PUMP



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | IORB  | BOFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------------------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF333) | ○      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | .240               | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SG.FT |
| (TJF334) | □      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 4.003              | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF335) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 6.127              | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF336) | △      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 8.113              | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF337) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 10.121             | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF338) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 12.123             | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |                    |       |        |        | SCALE                 | .0405     |       |

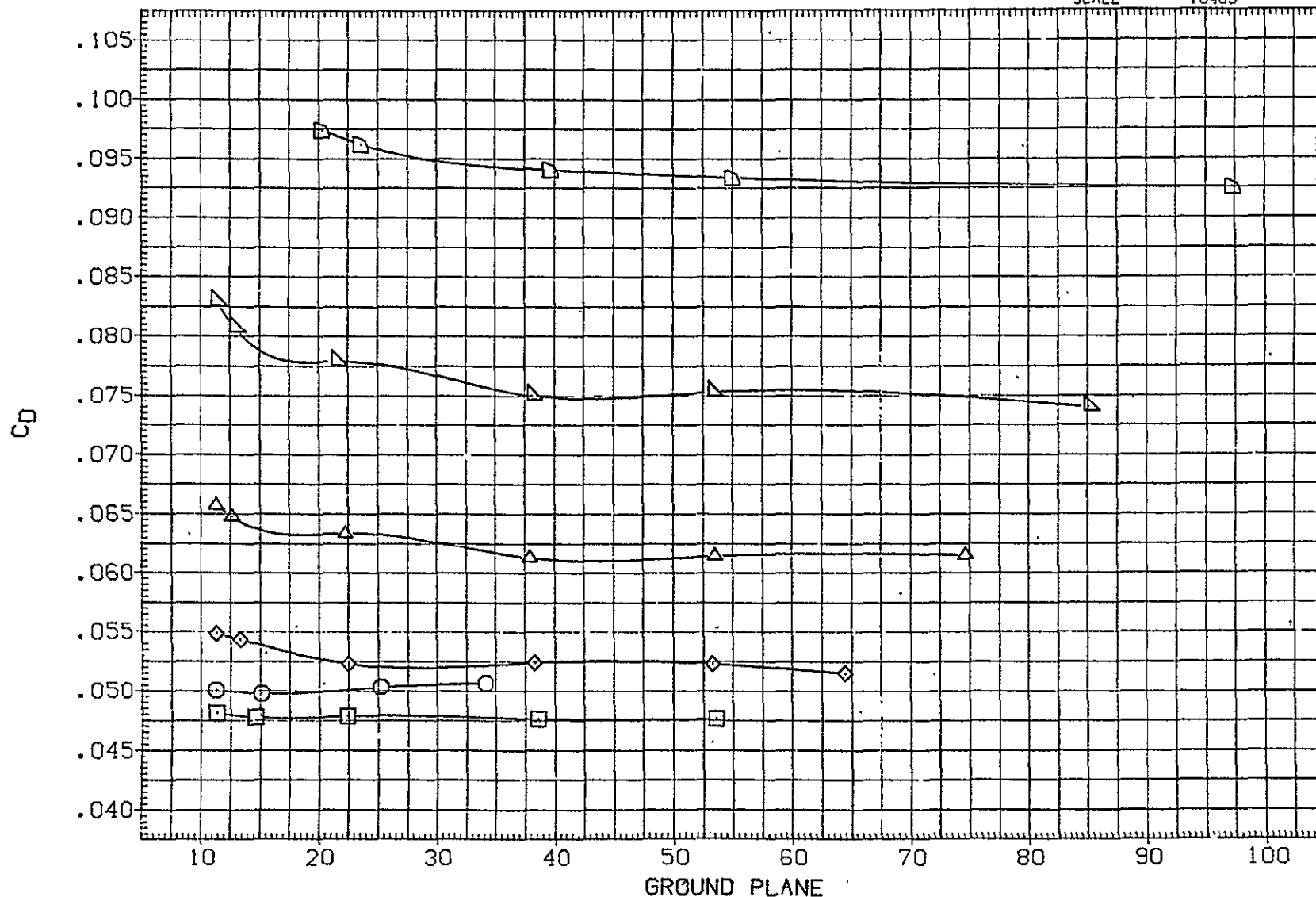


FIG 285 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, FLAPS 10, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS, WITH SUCTION PUMP

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |                 |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------------|
| (TJF333) | ○      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | .240   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 SQ.FT |
| (TJF334) | □      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 4.003  | 6.000 | .000   | -5.000 | LREF                  | 474.8100 IN.    |
| (TJF335) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 6.127  | 6.000 | .000   | -5.000 | BPEF                  | 936.6800 IN.    |
| (TJF336) | △      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 8.113  | 6.000 | .000   | -5.000 | XMRF                  | 1109.0000 IN.X0 |
| (TJF337) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 10.121 | 6.000 | .000   | -5.000 | YMRF                  | .0000 IN.Y0     |
| (TJF338) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 12.123 | 6.000 | .000   | -5.000 | ZMRF                  | 375.0000 IN.Z0  |
|          |        |                                     |        |       |        |        | SCALE                 | .0405           |

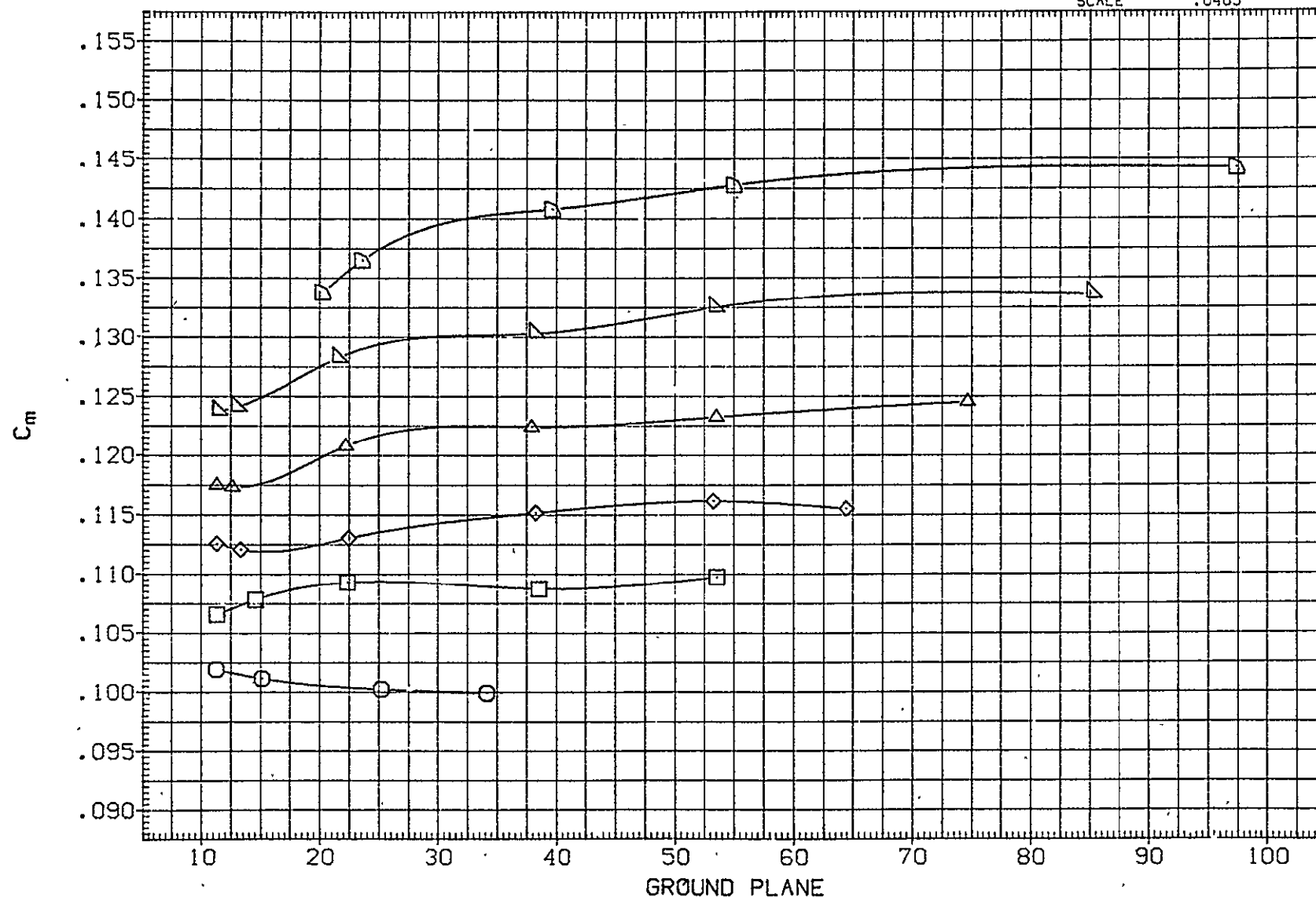


FIG 285 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, FLAPS 10, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS, WITH SUCTION PUMP

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF339) | ○      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | .132   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF340) | □      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 4.180  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF341) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 6.149  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF342) | △      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 8.123  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF343) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 10.116 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF344) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 12.139 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

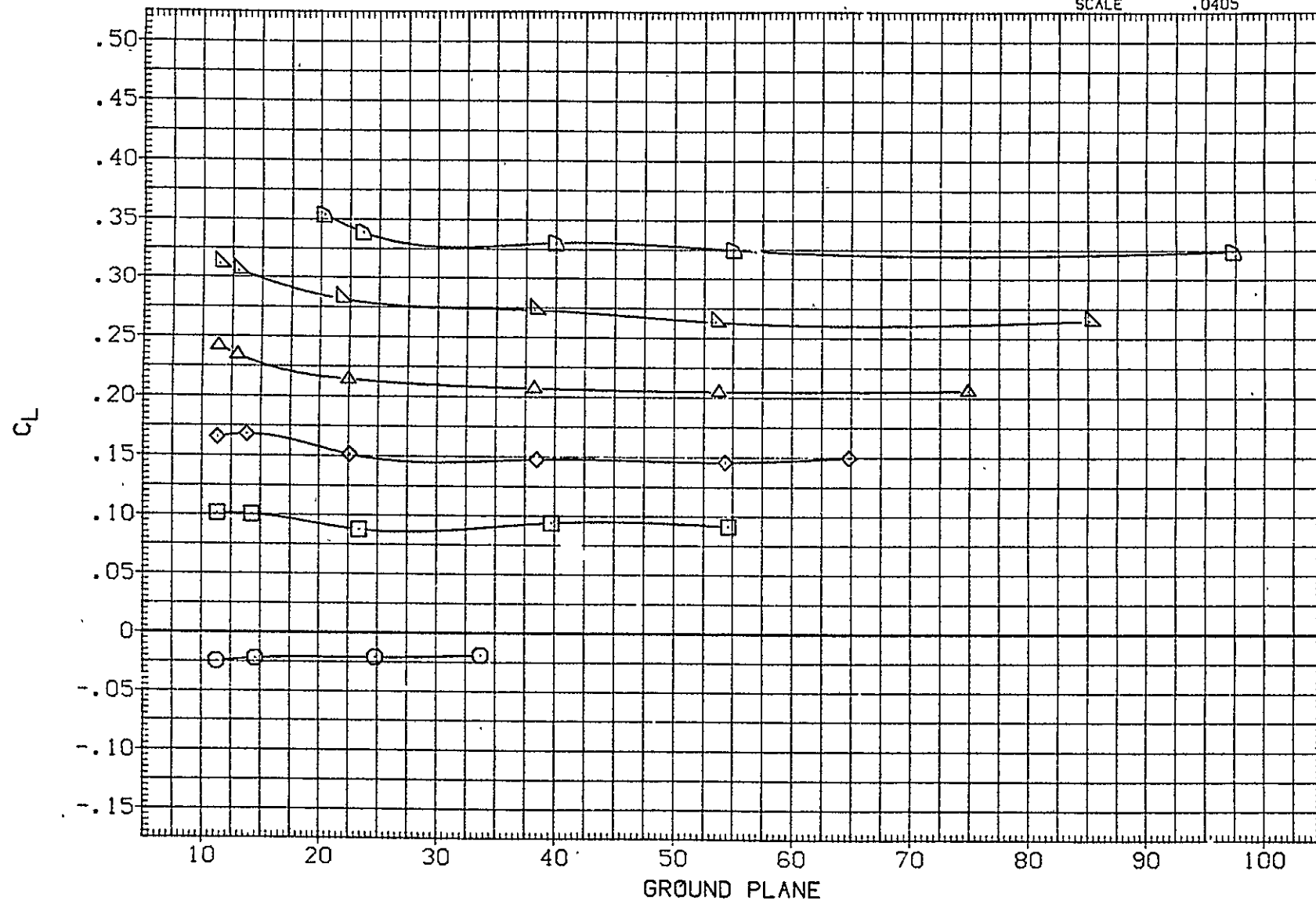


FIG 286 ALT CONFIG IN GROUND PROXIMITY, STAB = 2, FLAPS 10, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS, WITH SUCTION PUMP

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------------------|-------|--------|--------|-----------------------|-----------|--------|
| (TJF339) | ○      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | .132               | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50.FT  |
| (TJF340) | □      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 4.180              | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF341) | △      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 6.149              | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF342) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 8.123              | 6.000 | .000   | -5.000 | XMHP                  | 1109.0000 | IN. X0 |
| (TJF343) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 10.116             | 6.000 | .000   | -5.000 | YMHP                  | .0000     | IN. Y0 |
| (TJF344) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 12.139             | 6.000 | .000   | -5.000 | ZMHP                  | 375.0000  | IN. Z0 |
|          |        |                                     |                    |       |        |        | SCALE                 | .0405     |        |

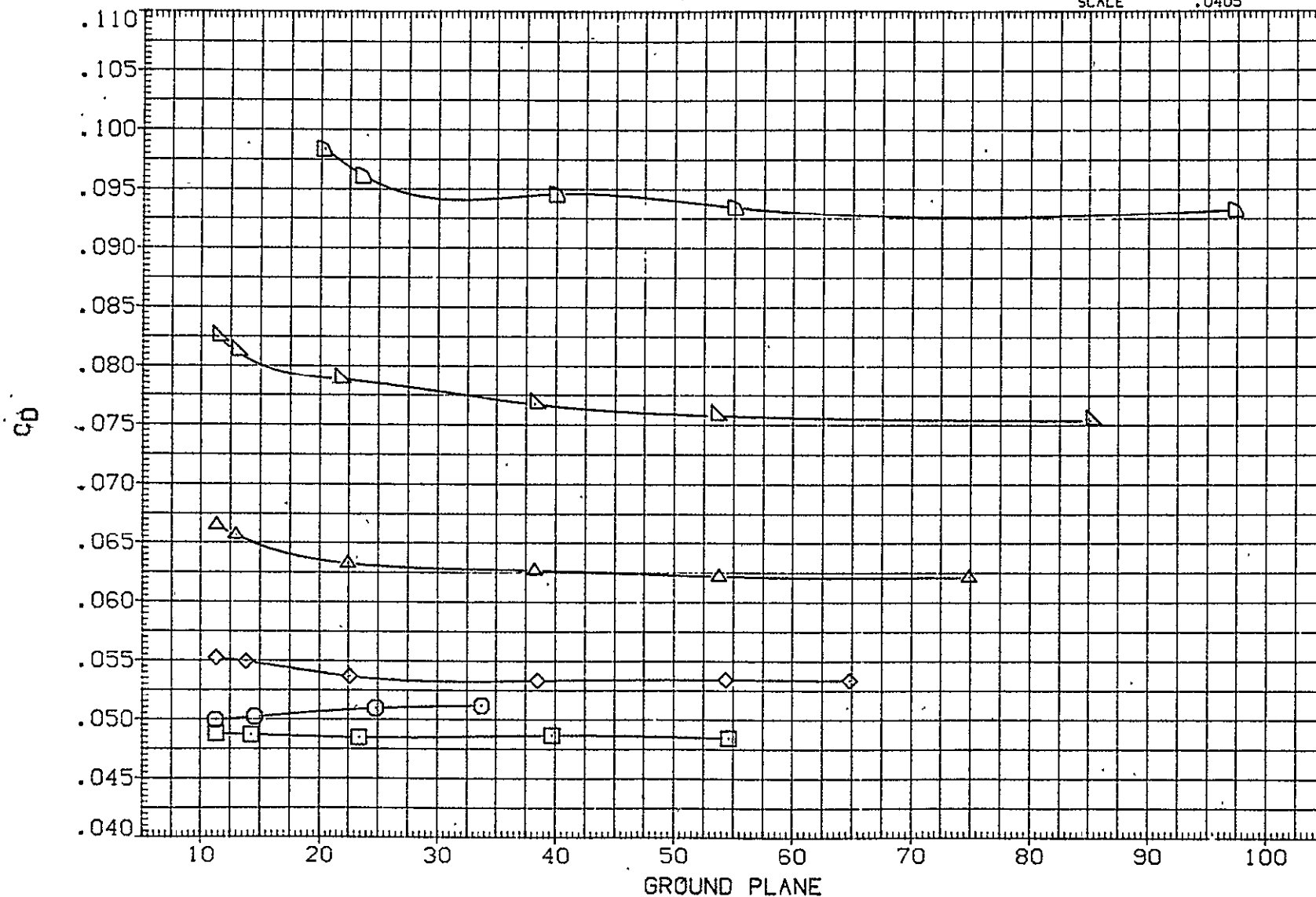


FIG 286 ALT CONFIG IN GROUND PROXIMITY, STAB = 2, FLAPS 10, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS, WITH SUCTION PUMP

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF339) | ○      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | .132   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF340) | □      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 4.180  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF341) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 6.149  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF342) | △      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 8.123  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF343) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 10.116 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF344) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 12.139 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

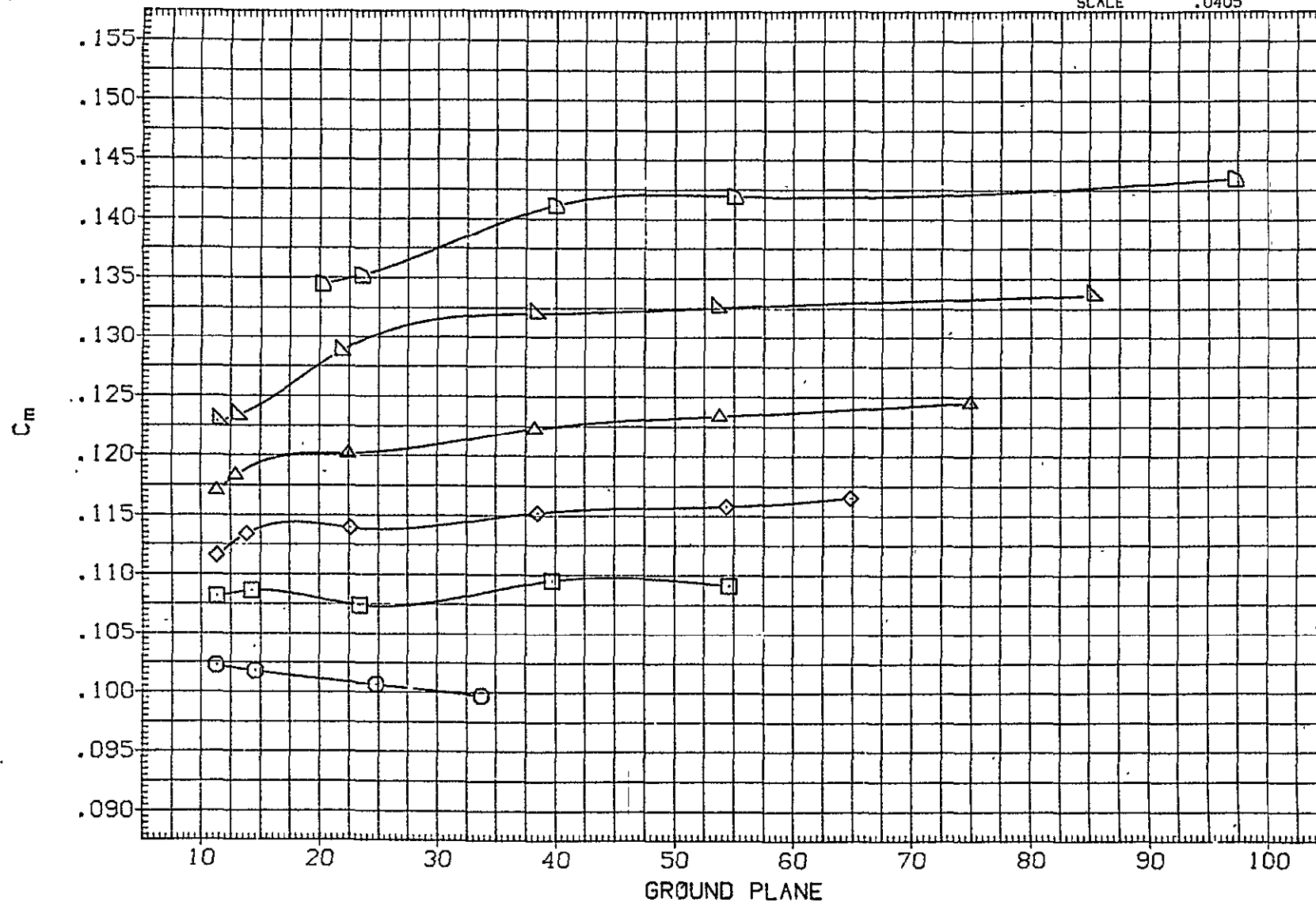


FIG 286 ALT CONFIG IN GROUND PROXIMITY, STAB = 2, FLAPS 10, IORB=6. TC OFF  
ORBITER BALANCE DATA-GP SWEEPS. WITH SUCTION PUMP

(A)MACH = .15

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REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF374) | ○      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | .187   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF375) | □      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 4.094  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF376) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 6.154  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF377) | △      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 8.131  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF378) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 10.146 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF379) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 12.167 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

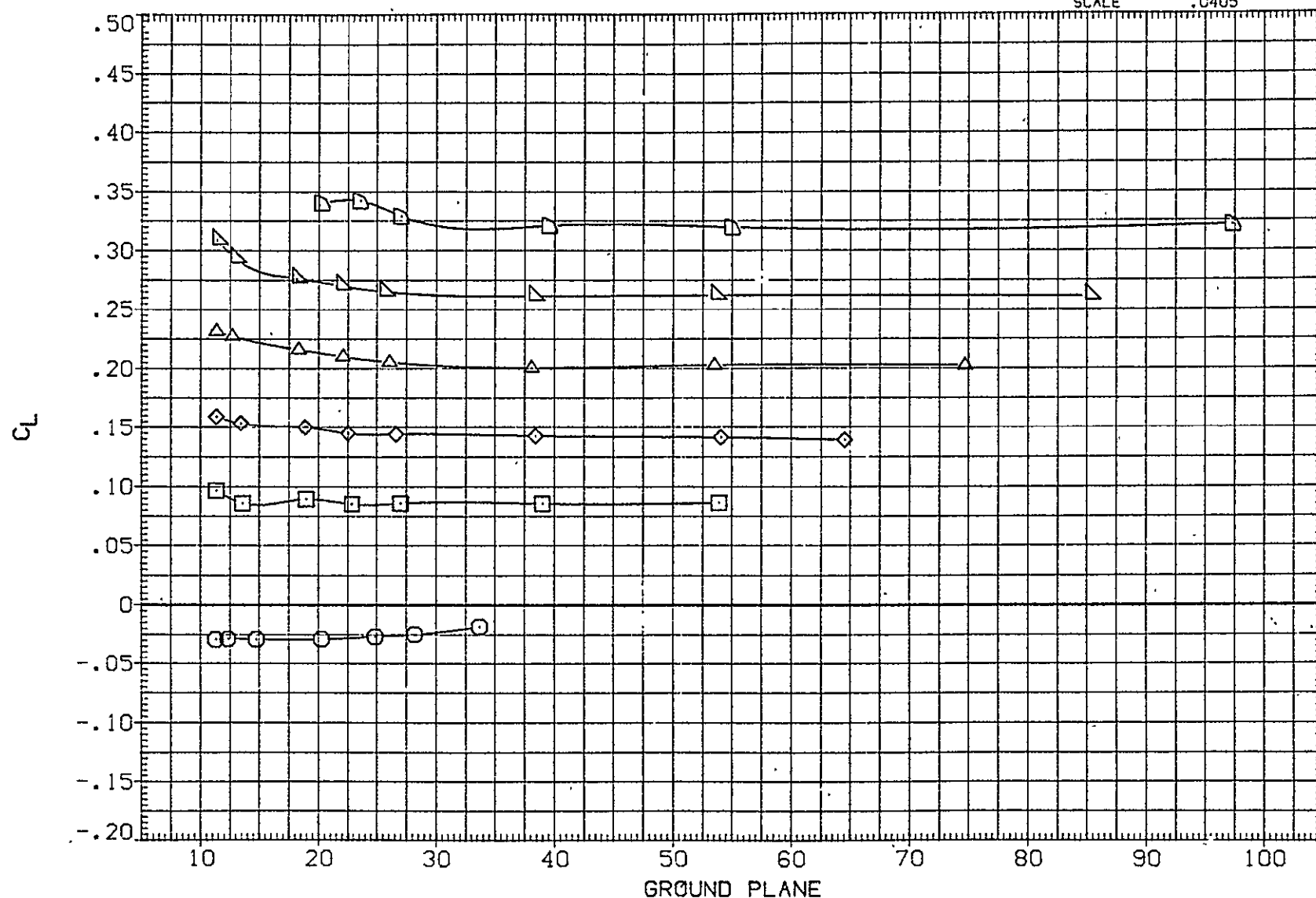


FIG 287 ALT CONFIG IN GROUND PROXIMITY, STAB = 0. FLAPS 10, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS, WITHOUT SUCTION PUMP

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | I <sub>ORB</sub> | BDFLAP | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------------------|------------------|--------|--------|-----------------------|-----------|--------|
| (TJF374) | ○      | (CA-8) K3.1TS7H15.6.1FIOTS40265.3.5 | .187               | 6.000            | .000   | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF375) | ◇      | (CA-8) K3.1TS7H15.6.1FIOTS40265.3.5 | 4.094              | 6.000            | .000   | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF376) | □      | (CA-8) K3.1TS7H15.6.1FIOTS40265.3.5 | 6.154              | 6.000            | .000   | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF377) | △      | (CA-8) K3.1TS7H15.6.1FIOTS40265.3.5 | 8.131              | 6.000            | .000   | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF378) | ▽      | (CA-8) K3.1TS7H15.6.1FIOTS40265.3.5 | 10.146             | 6.000            | .000   | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF379) | ◇      | (CA-8) K3.1TS7H15.6.1FIOTS40265.3.5 | 12.167             | 6.000            | .000   | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |                    |                  |        |        | SCALE                 | .0405     |        |

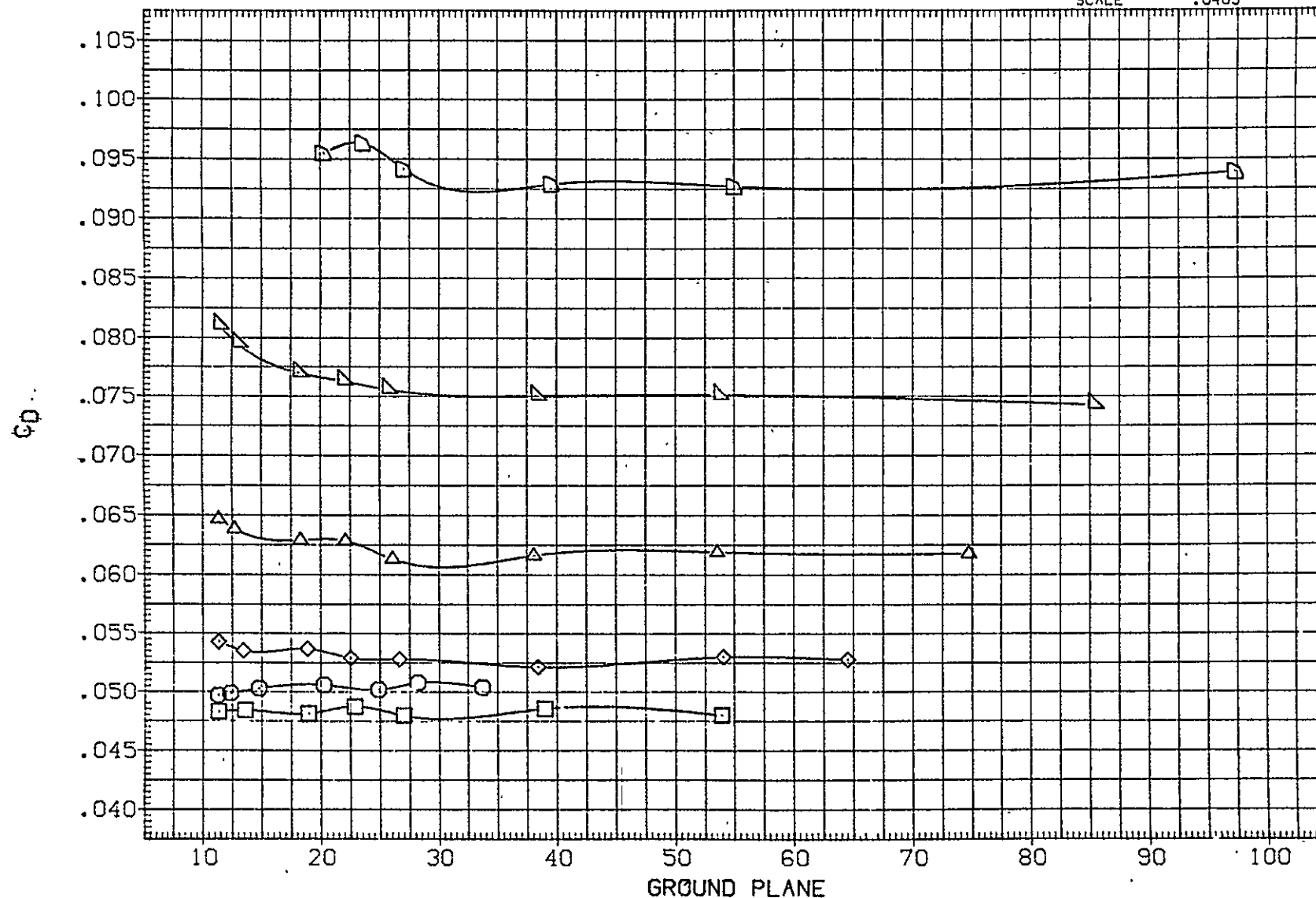


FIG 287 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, FLAPS 10, I<sub>ORB</sub>=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS, WITHOUT SUCTION PUMP

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF374) | ○      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | .187   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | 90.FT |
| (TJF375) | □      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 4.094  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF376) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 6.154  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF377) | △      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 8.131  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF378) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 10.146 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF379) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 12.167 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

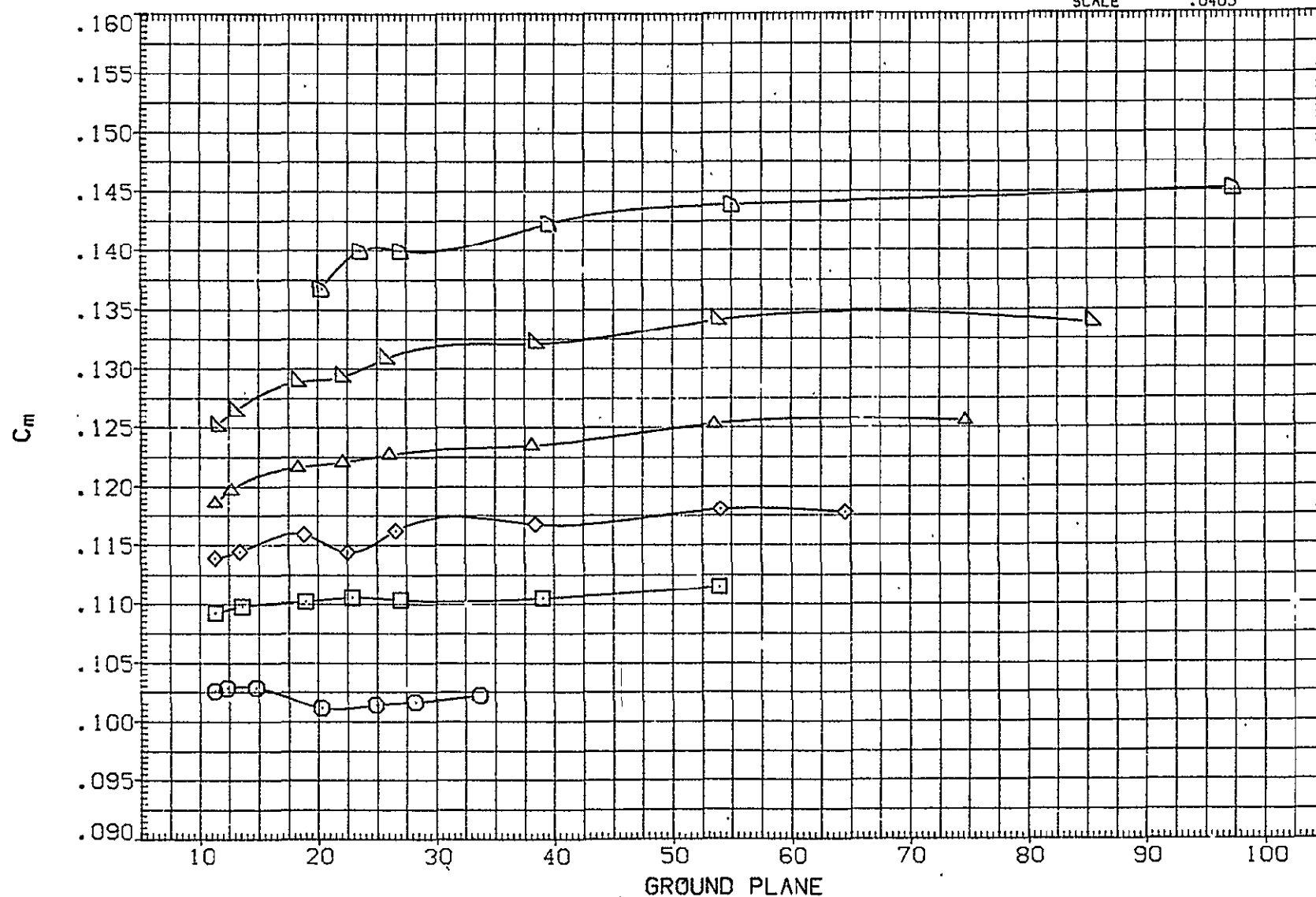


FIG 287 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, FLAPS 10, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS, WITHOUT SUCTION PUMP

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BOFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF380) | ○      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | .132   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF381) | □      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 4.129  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF382) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 6.149  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF383) | △      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 8.171  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF384) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 10.148 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF385) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 12.178 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

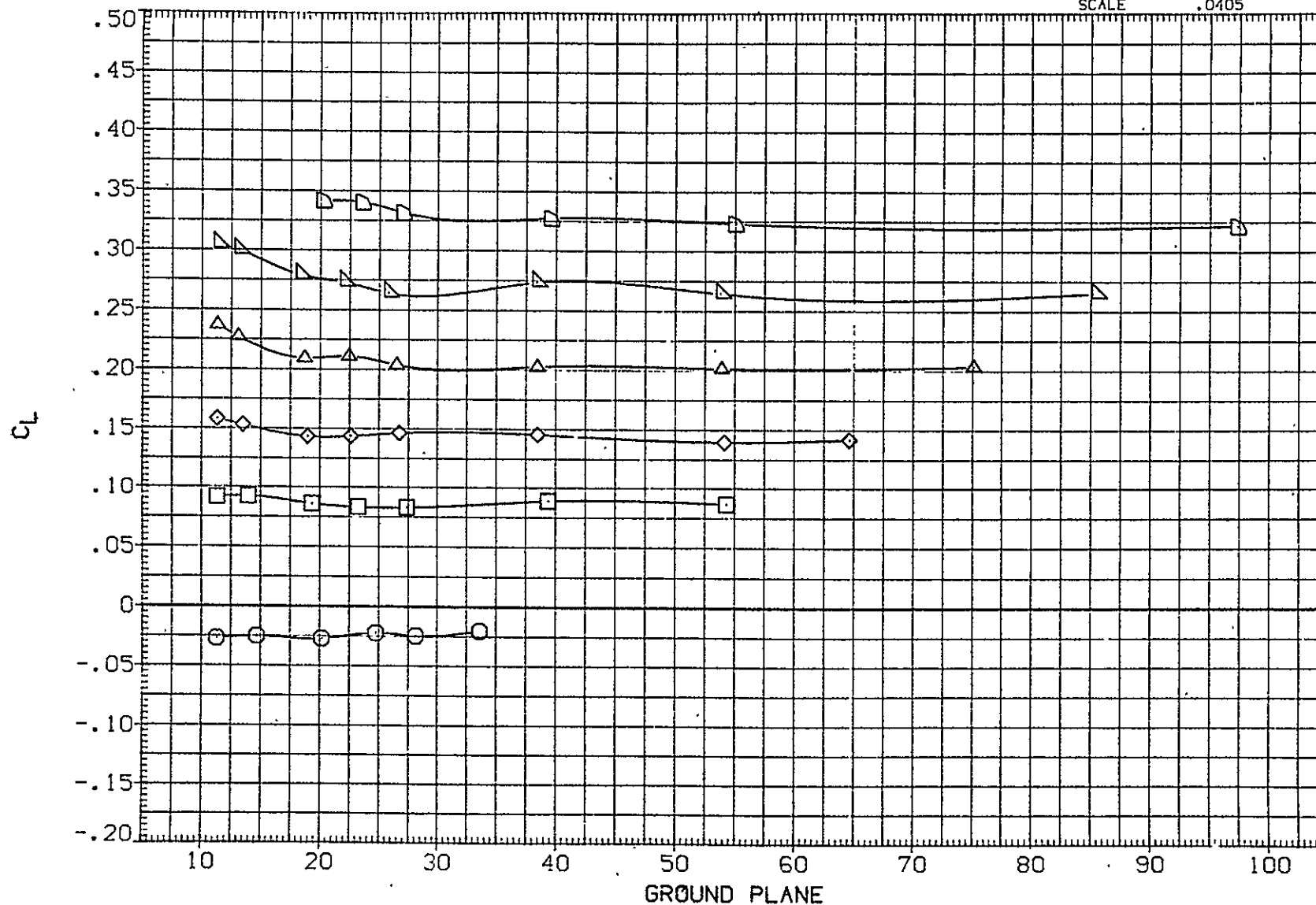


FIG 288 ALT CONFIG IN GROUND PROXIMITY, STAB = 4. FLAPS 10, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS, WITHOUT SUCTION PUMP

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BOFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF380) | ○      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | .132   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SG,FT |
| (TJF381) | □      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 4.129  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF382) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 6.149  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF383) | △      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 8.171  | 6.000 | .000   | -5.000 | XMRF                  | 1109.0000 | IN.X0 |
| (TJF384) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 10.148 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF385) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 12.178 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

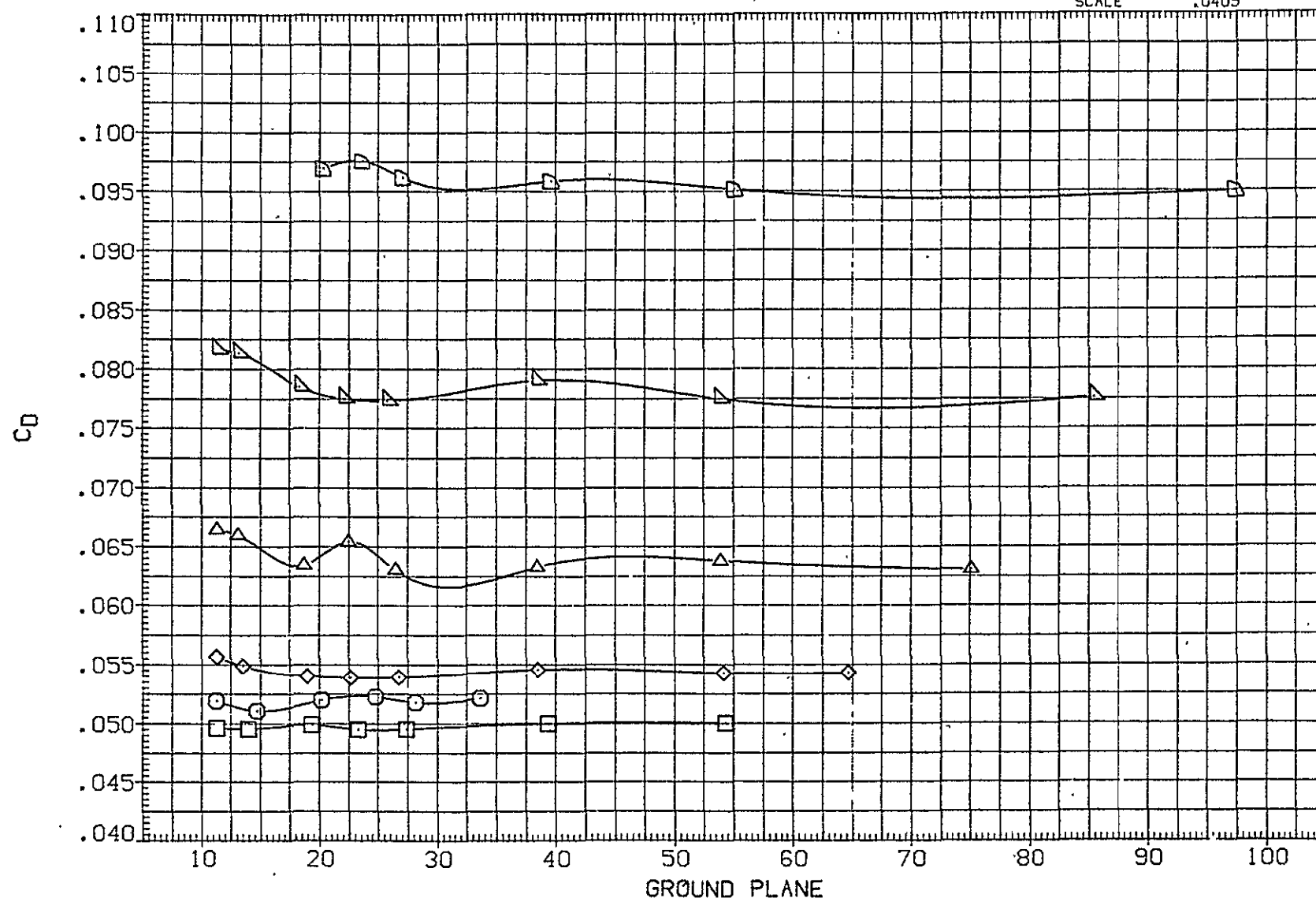


FIG 288 ALT CONFIG IN GROUND PROXIMITY, STAB = 4, FLAPS 10, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS, WITHOUT SUCTION PUMP

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|--------|
| (TJF380) | ○      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | .132   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF381) | □      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 4.129  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF382) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 6.149  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF383) | △      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 8.171  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF384) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 10.148 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF385) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 12.178 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |        |

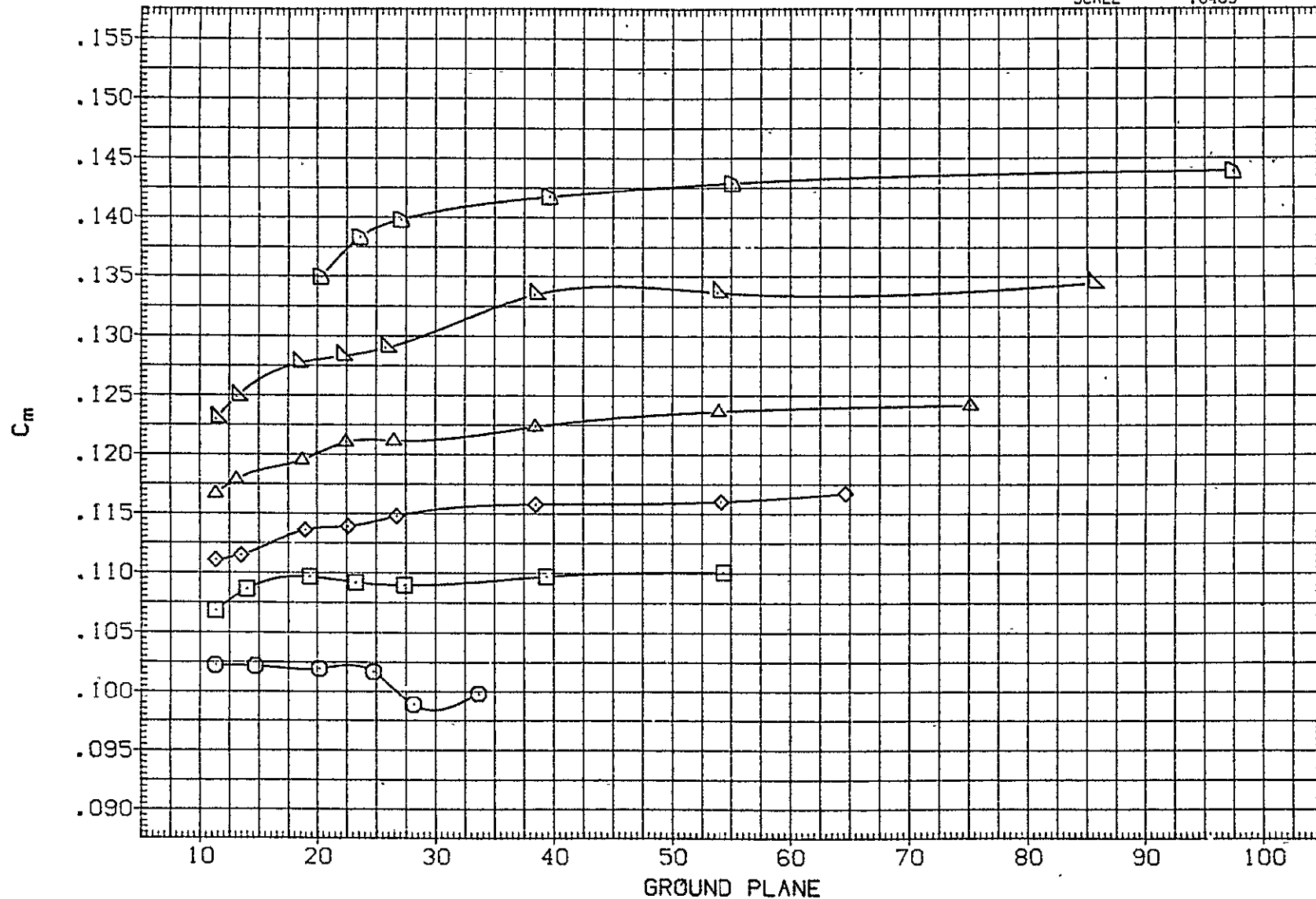


FIG 288 ALT CONFIG IN GROUND PROXIMITY, STAB = 4, FLAPS 10, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS, WITHOUT SUCTION PUMP

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF357) | ○      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | .223   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF358) | □      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 3.987  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF359) | △      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 6.129  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF360) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 8.220  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF361) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 10.205 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF362) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 12.137 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

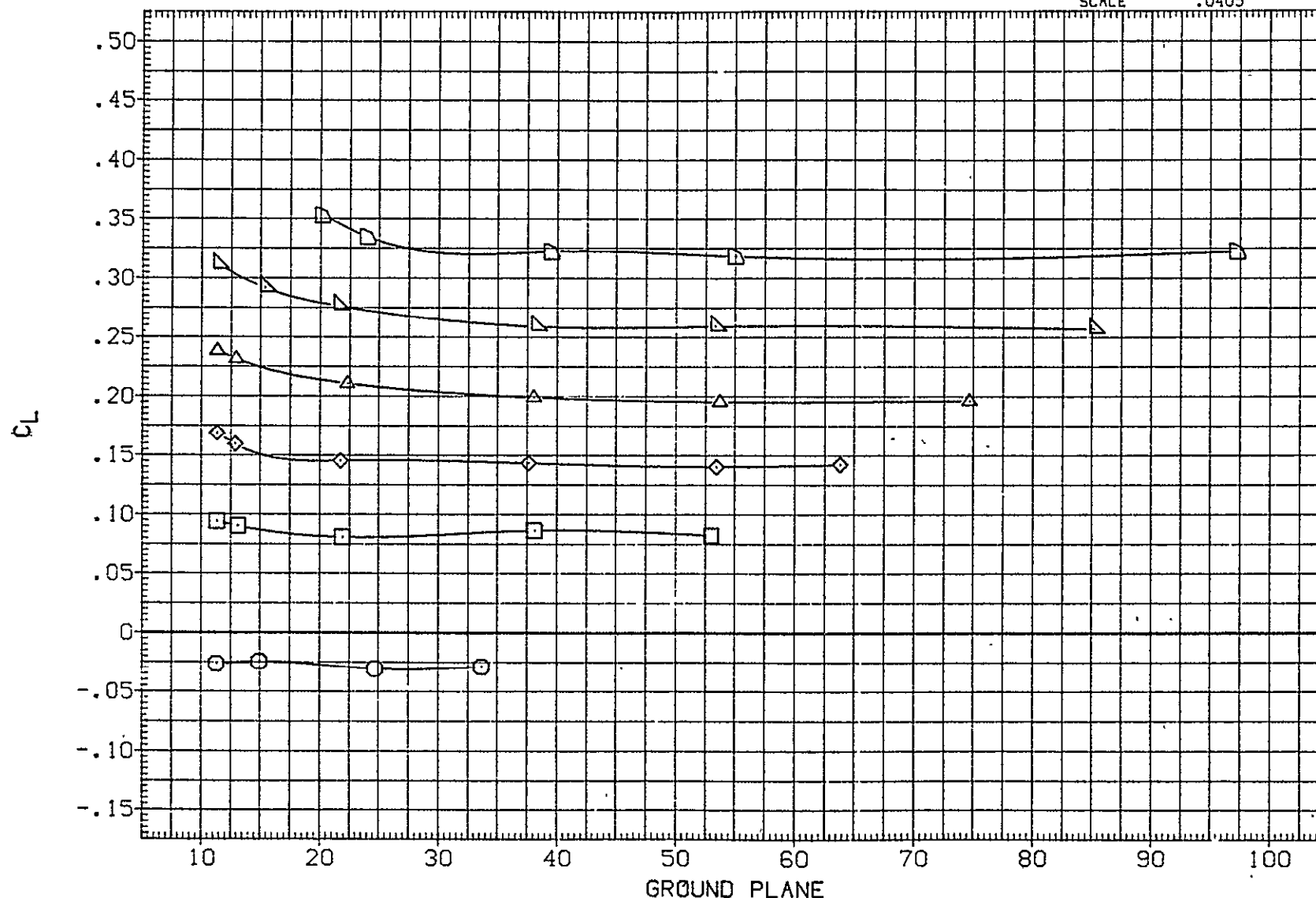


FIG 289 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF357) | ○      | (CA-8) K3.1TS7H15.6.1FIOTS40265.3.5 | .223   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF358) | □      | (CA-8) K3.1TS7H15.6.1FIOTS40265.3.5 | 3.987  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF359) | ◇      | (CA-8) K3.1TS7H15.6.1FIOTS40265.3.5 | 6.129  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF360) | △      | (CA-8) K3.1TS7H15.6.1FIOTS40265.3.5 | 8.220  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF361) | ▽      | (CA-8) K3.1TS7H15.6.1FIOTS40265.3.5 | 10.205 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF362) | ◻      | (CA-8) K3.1TS7H15.6.1FIOTS40265.3.5 | 12.137 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

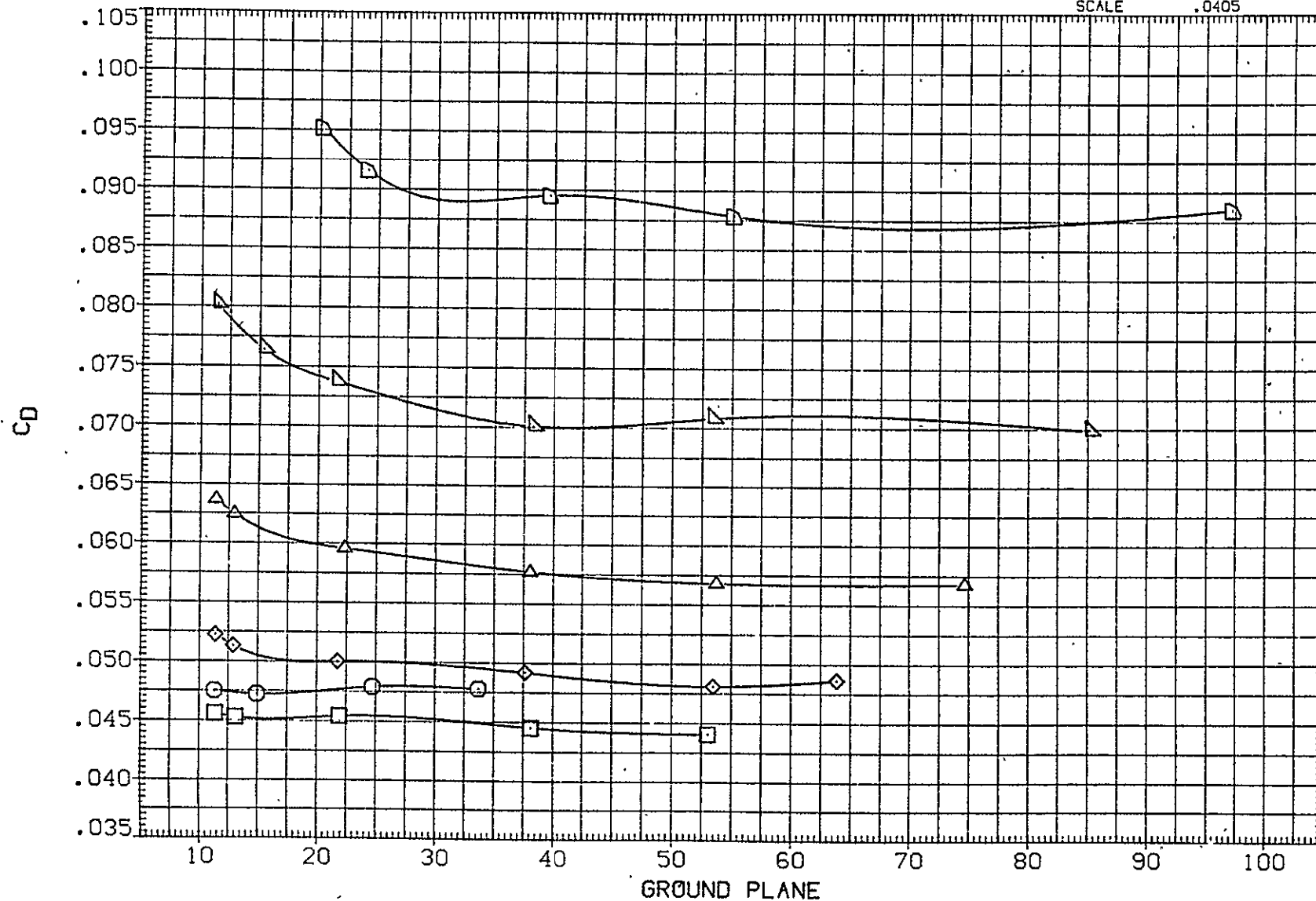


FIG 289 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW      | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|-------------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF357) | ○      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | .223        | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF358) | □      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 3.987       | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF359) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 6.129       | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF360) | △      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 8.220       | 6.000 | .000   | -5.000 | XMRF                  | 1109.0000 | IN.X0 |
| (TJF361) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 10.205      | 6.000 | .000   | -5.000 | YMRF                  | .0000     | IN.Y0 |
| (TJF362) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 12.137      | 6.000 | .000   | -5.000 | ZMRF                  | 375.0000  | IN.Z0 |
|          |        |                                     | SCALE .0405 |       |        |        |                       |           |       |

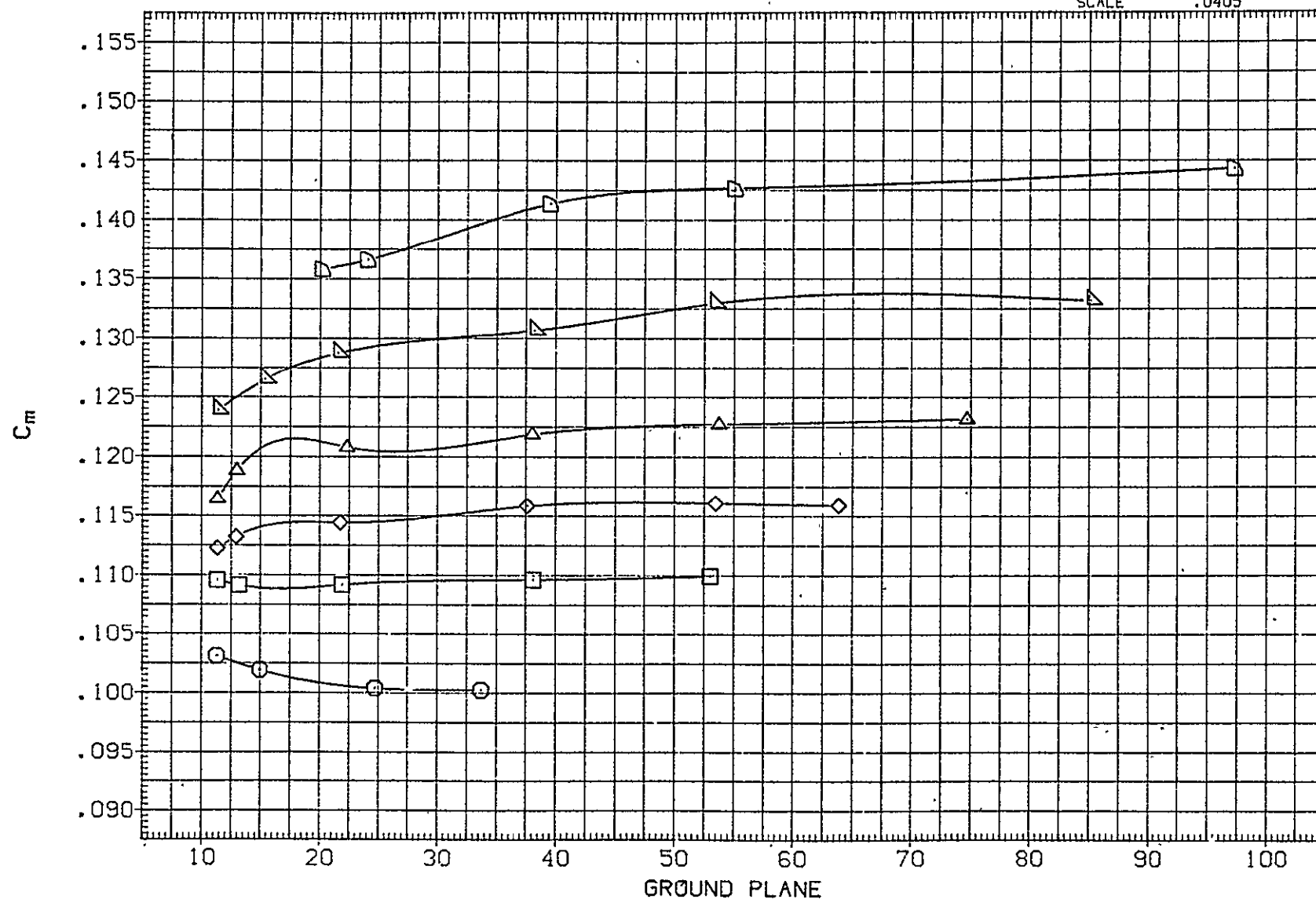


FIG 289 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA W | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|---------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF229) | ○      | (CA-8) K3.1TS7 F30TS40265.3.5 | .216    | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF230) | □      | (CA-8) K3.1TS7 F30TS40265.3.5 | 4.197   | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF231) | ◇      | (CA-8) K3.1TS7 F30TS40265.3.5 | 6.094   | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF232) | △      | (CA-8) K3.1TS7 F30TS40265.3.5 | 8.072   | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF233) | ▽      | (CA-8) K3.1TS7 F30TS40265.3.5 | 10.131  | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF234) | ▢      | (CA-8) K3.1TS7 F30TS40265.3.5 | 12.131  | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                               |         |       |        |        | SCALE                 | .0405     |       |

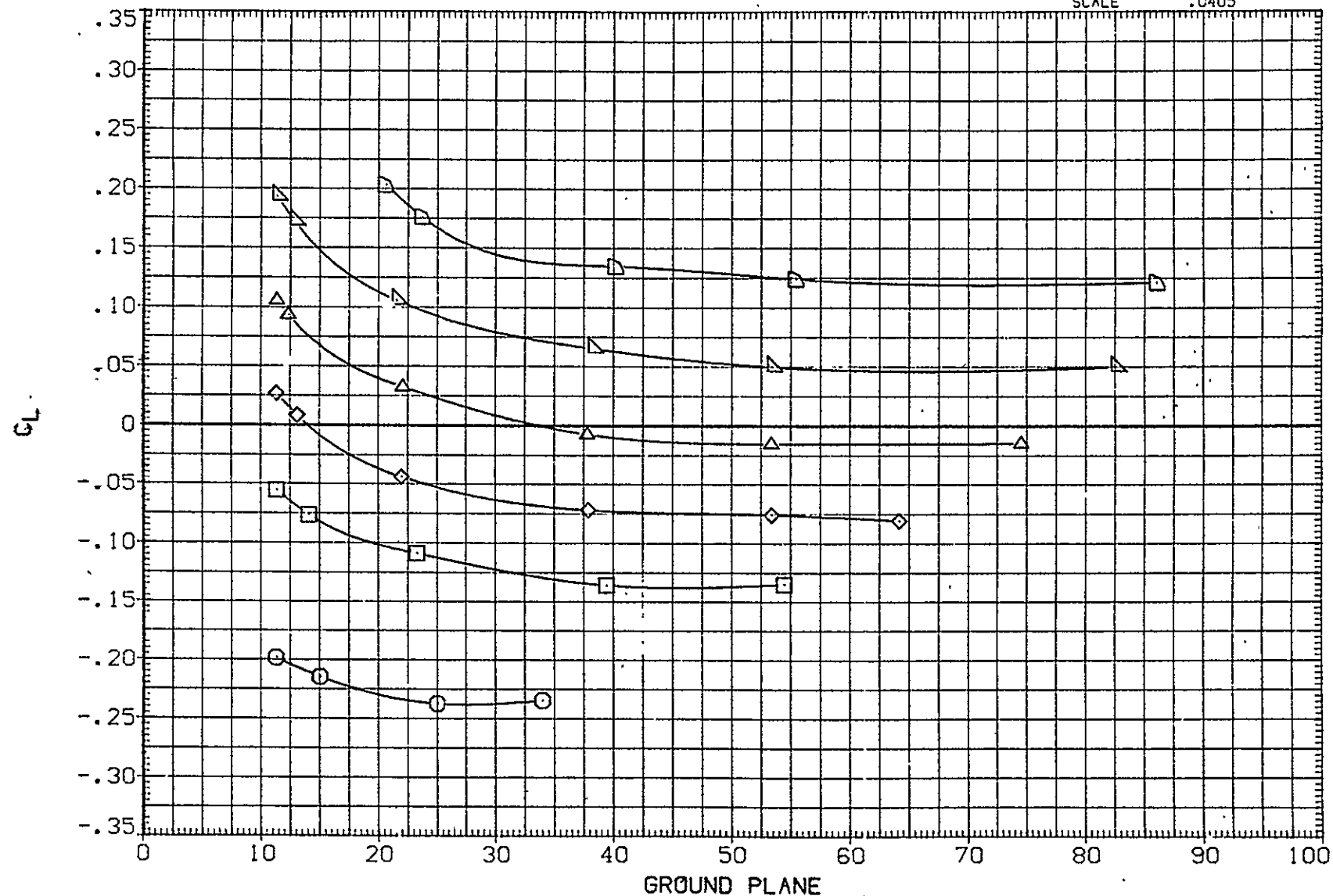


FIG 290 ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF, FLAPS 30, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |                 |
|----------|--------|-------------------------------|--------|-------|--------|--------|-----------------------|-----------------|
| (TJF229) | □      | (CA-8) K3.1TS7 F30TS40265.3.5 | .216   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 SQ.FT |
| (TJF230) | ○      | (CA-8) K3.1TS7 F30TS40265.3.5 | 4.197  | 6.000 | .000   | -5.000 | LREF                  | 474.8100 IN.    |
| (TJF231) | ×      | (CA-8) K3.1TS7 F30TS40265.3.5 | 6.094  | 6.000 | .000   | -5.000 | BREF                  | 936.6800 IN.    |
| (TJF232) | △      | (CA-8) K3.1TS7 F30TS40265.3.5 | 8.072  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 IN.X0 |
| (TJF233) | ▽      | (CA-8) K3.1TS7 F30TS40265.3.5 | 10.131 | 6.000 | .000   | -5.000 | YMRP                  | .0000 IN.Y0     |
| (TJF234) | ◇      | (CA-8) K3.1TS7 F30TS40265.3.5 | 12.131 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000 IN.Z0  |
|          |        |                               |        |       |        |        | SCALE                 | .0405           |

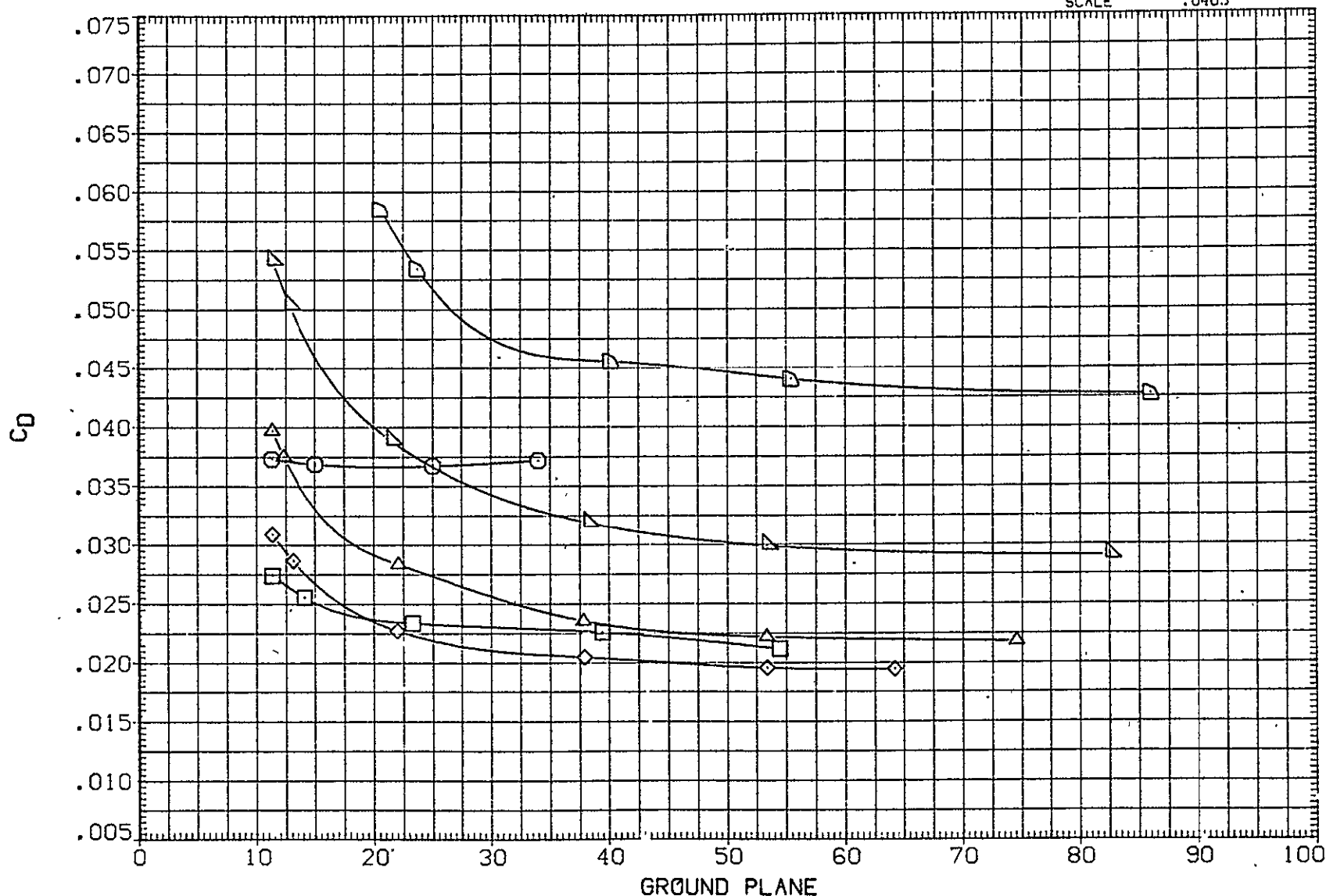


FIG 290 ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF, FLAPS 30, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF229) | ○      | (CA-8) K3.1TS7 F30TS40265.3.5 | .216   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF230) | □      | (CA-8) K3.1TS7 F30TS40265.3.5 | 4.197  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF231) | ◇      | (CA-8) K3.1TS7 F30TS40265.3.5 | 6.094  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF232) | △      | (CA-8) K3.1TS7 F30TS40265.3.5 | 8.072  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF233) | ▽      | (CA-8) K3.1TS7 F30TS40265.3.5 | 10.131 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF234) | ▷      | (CA-8) K3.1TS7 F30TS40265.3.5 | 12.131 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                               |        |       |        |        | SCALE                 | .0405     |       |

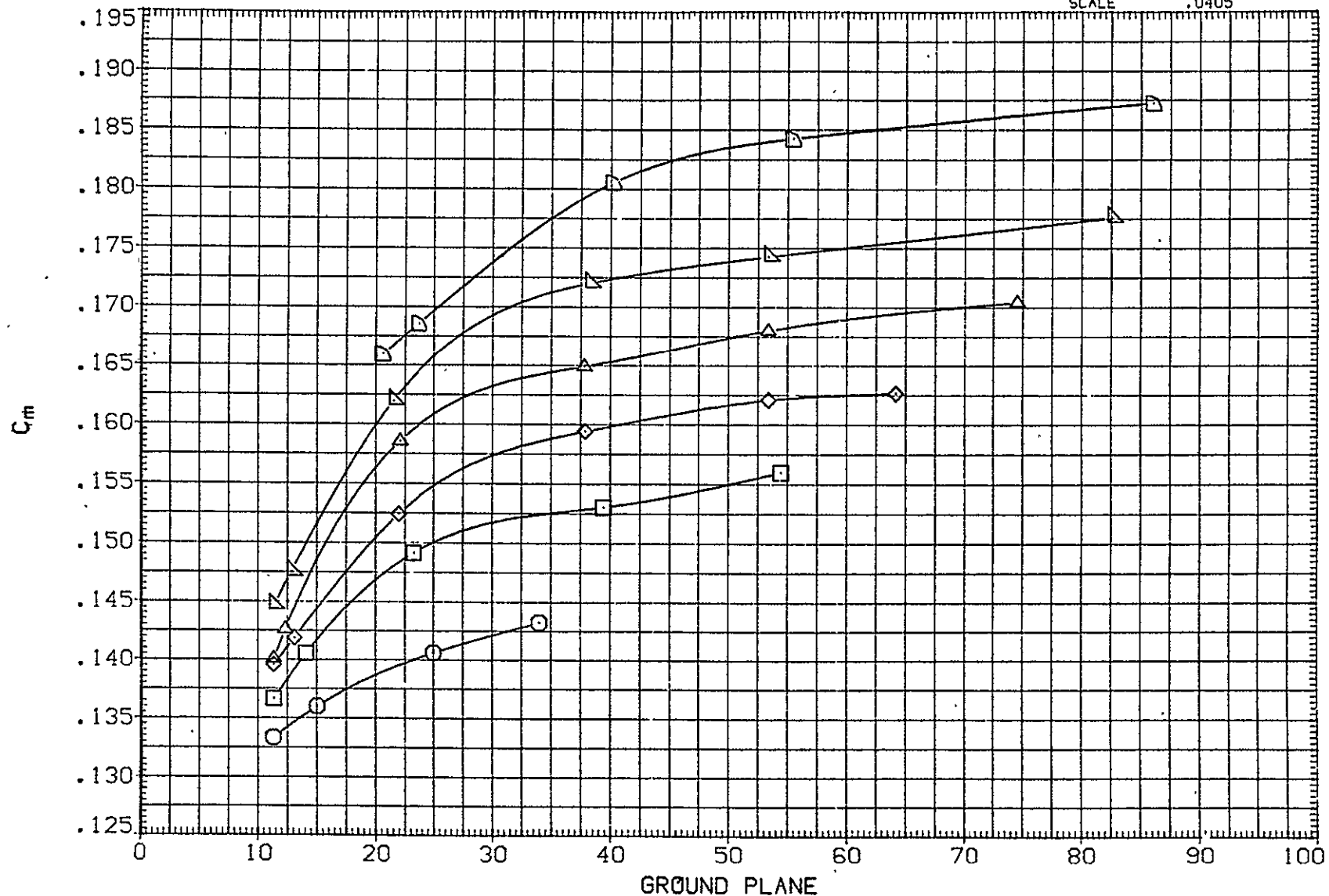


FIG 290 ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF, FLAPS 30, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|--------|
| (TJF223) | ○      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | .204   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF224) | □      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 4.117  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF225) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 6.147  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF226) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 8.164  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF227) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 10.089 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0  |
| (TJF228) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 12.121 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |        |

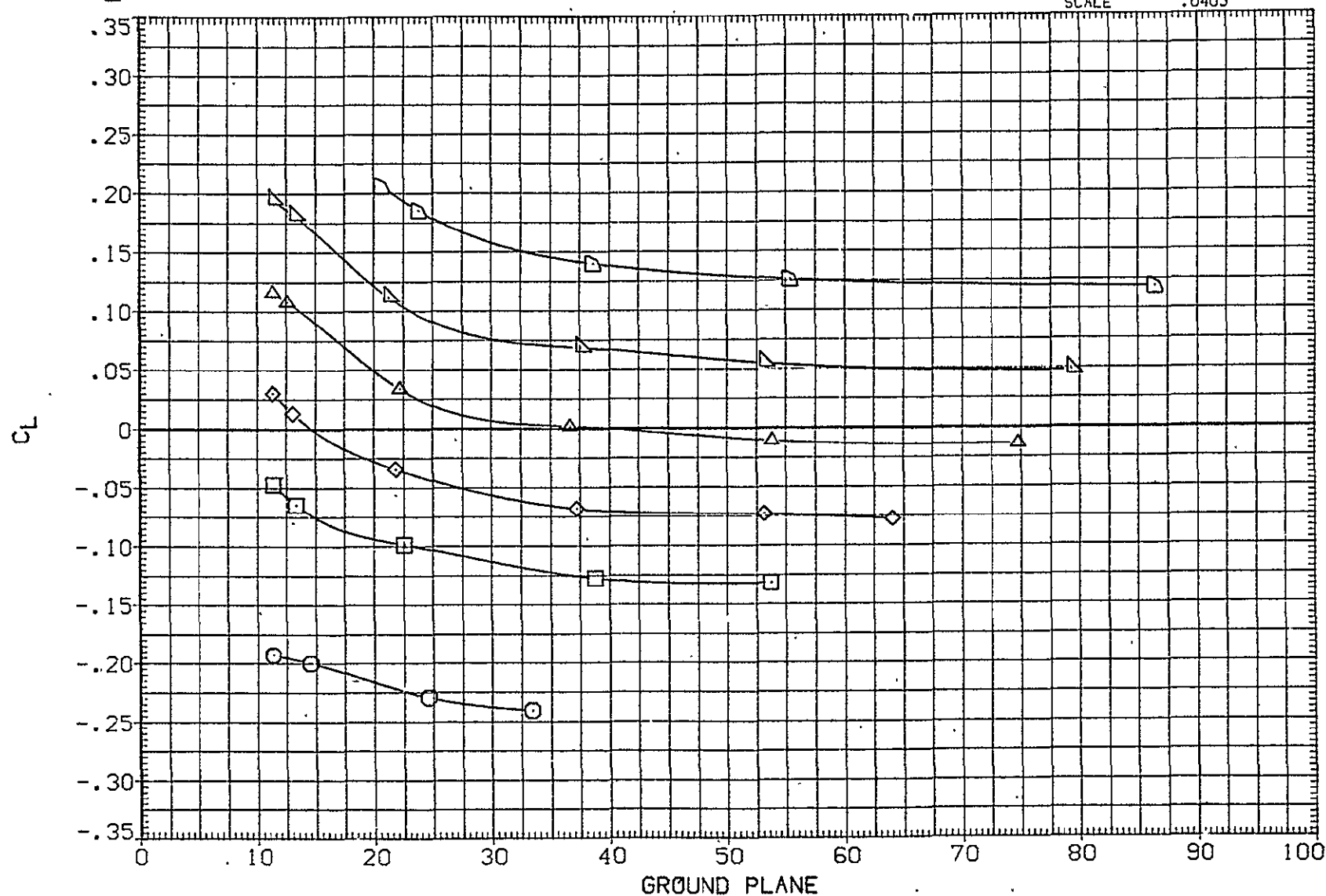


FIG 291 ALT CONFIG IN GROUND PROXIMITY, STAB = 2. FLAPS 30. IORB=6. TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION                        | ALPHA <sup>W</sup> | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|--|--------------------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF223) | ○      | (CA-8) K3.1TS <sup>W</sup> H15.6.1F30TS402G5.3.5 | .204               | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF224) | □      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5              | 4.117              | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF225) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5              | 6.147              | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF226) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5              | 8.164              | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF227) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5              | 10.089             | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF228) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5              | 12.121             | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |  |                    |       |        |        | SCALE                 | .0405     |       |

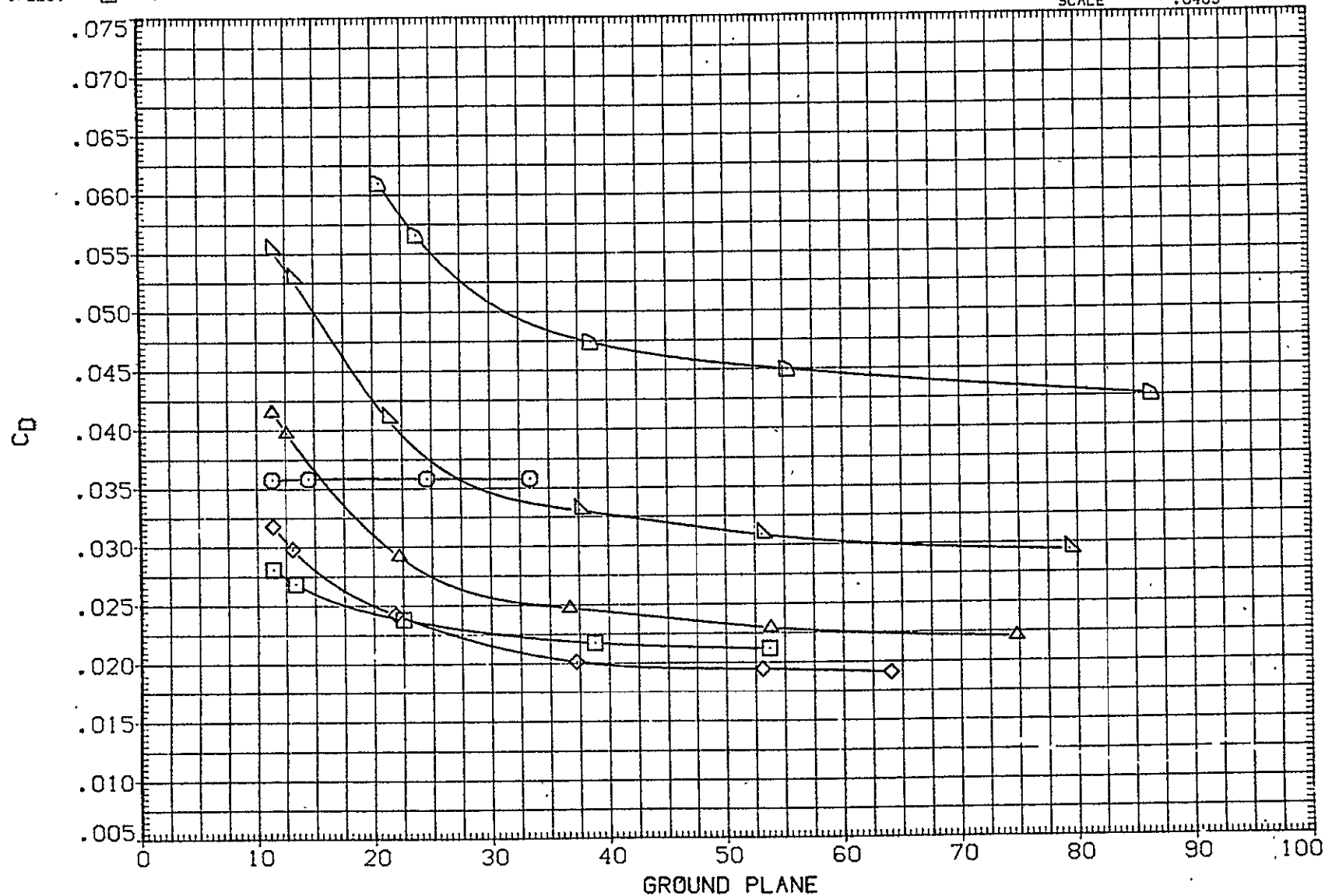


FIG 291 ALT CONFIG IN GROUND PROXIMITY, STAB = 2, FLAPS 30, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

1-5

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAY | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |                 |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------------|
| (TJF223) | ○      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | .204   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 SQ.FT |
| (TJF224) | □      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 4.117  | 6.000 | .000   | -5.000 | LREF                  | 474.8100 IN.    |
| (TJF225) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 6.147  | 6.000 | .000   | -5.000 | BREF                  | 936.6800 IN.    |
| (TJF226) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 8.164  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 IN.X0 |
| (TJF227) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 10.089 | 6.000 | .000   | -5.000 | YMRP                  | .0000 IN.Y0     |
| (TJF228) | ▷      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 12.121 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000 IN.Z0  |
|          |        |                                     |        |       |        |        | SCALE                 | .0405           |

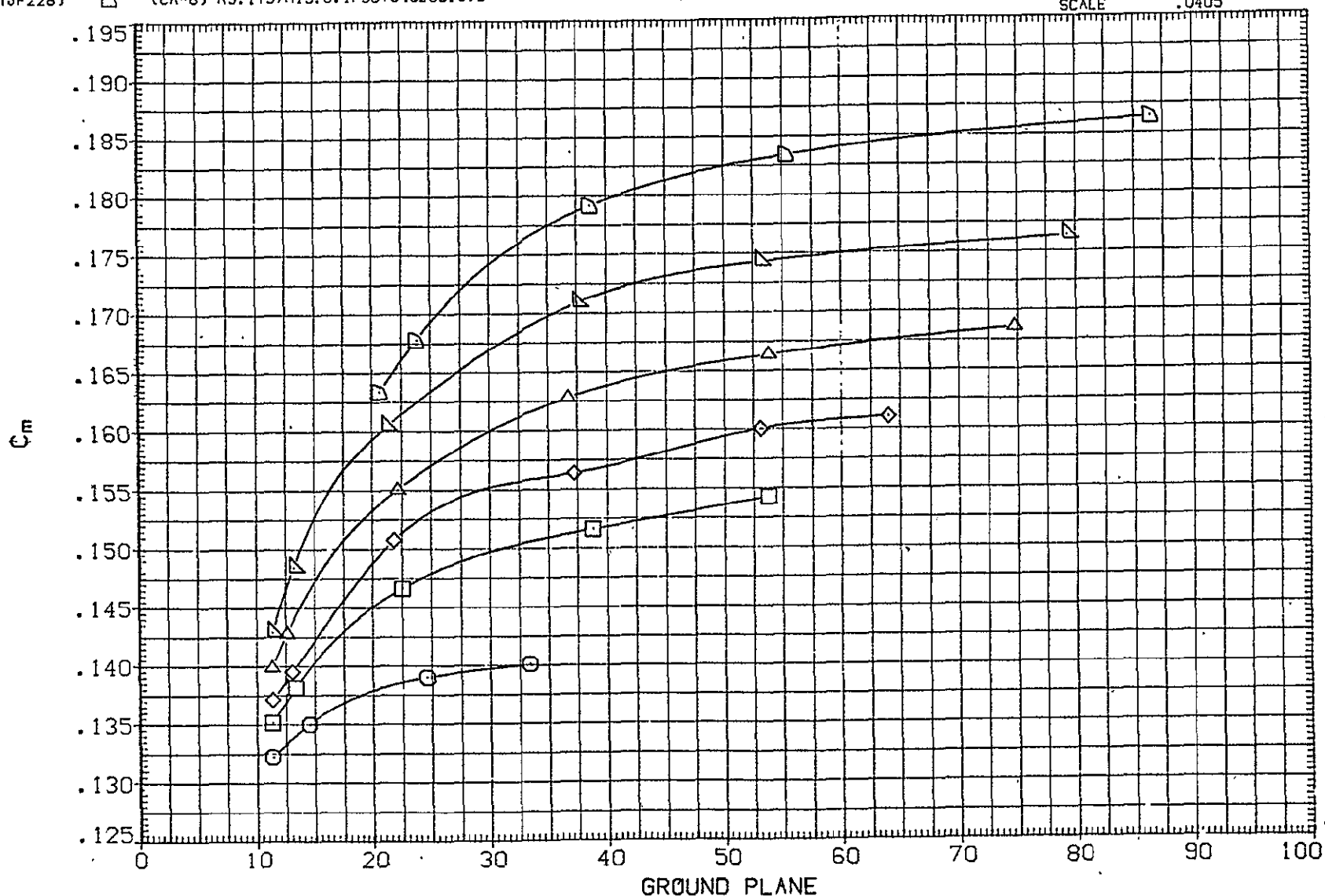


FIG 291 ALT CONFIG IN GROUND PROXIMITY, STAB = 2, FLAPS 30, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA W | IORB  | BD FLAP | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|---------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF217) | ○      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | .194    | 6.000 | .000    | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF218) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 4.059   | 6.000 | .000    | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF219) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 6.081   | 6.000 | .000    | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF220) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 8.162   | 6.000 | .000    | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF221) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 10.070  | 6.000 | .000    | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF222) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 12.211  | 6.000 | .000    | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |         |       |         |        | SCALE                 | .0405     |        |

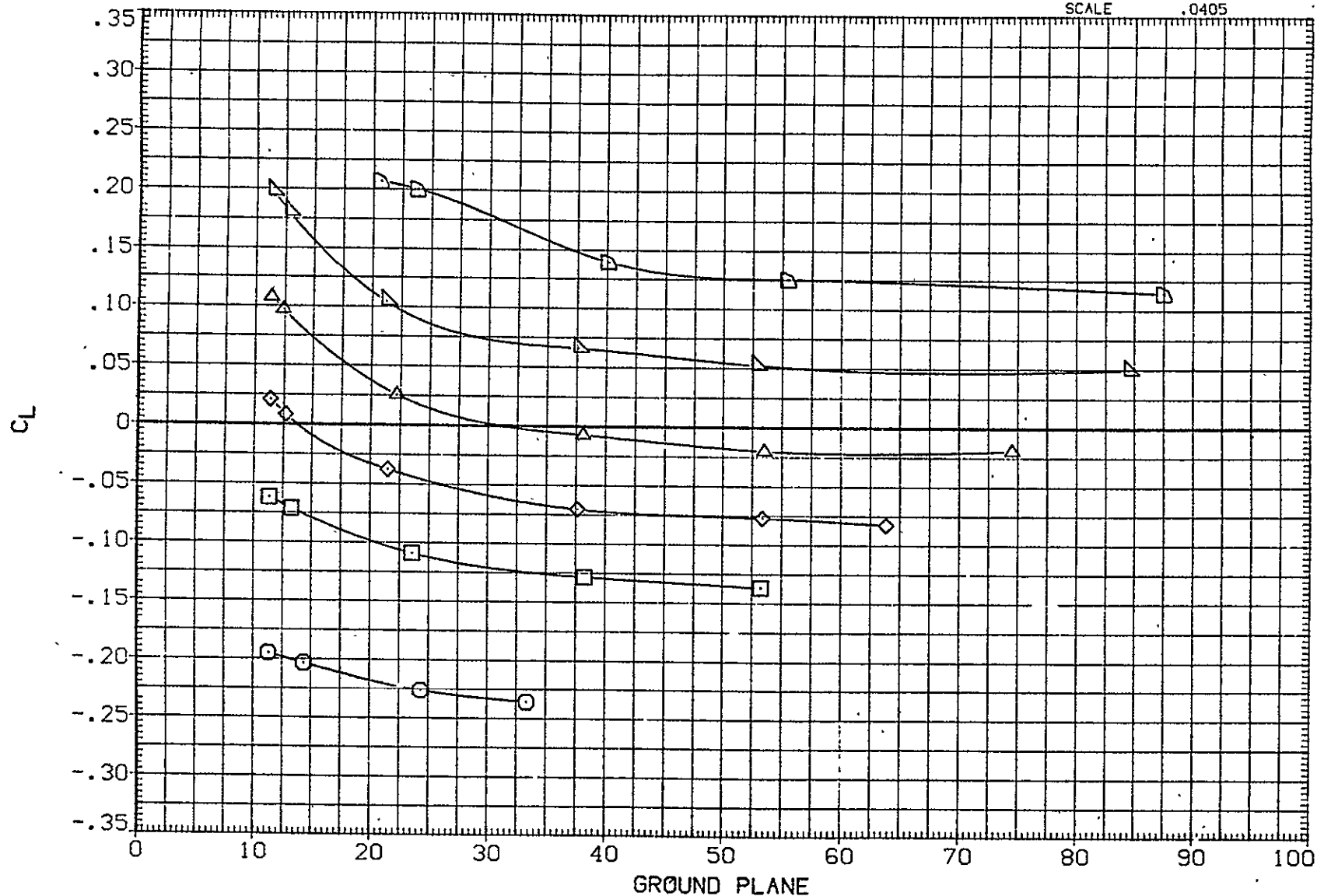


FIG 292 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, FLAPS 30, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF217) | ○      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | .194   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF218) | □      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 4.059  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF219) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 6.081  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF220) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 8.162  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.XO |
| (TJF221) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 10.070 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.YO |
| (TJF222) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 12.211 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

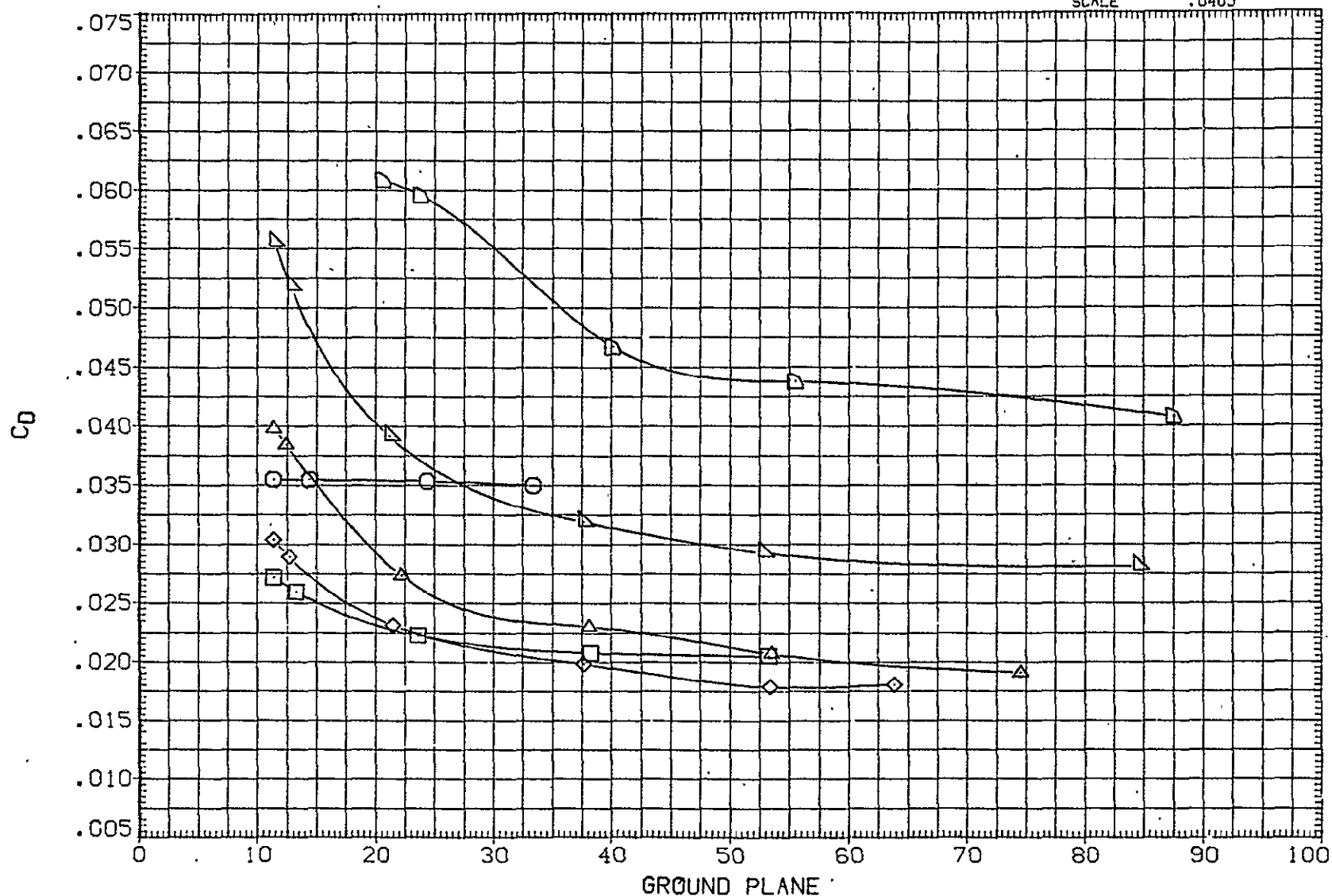


FIG 292 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, FLAPS 30, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAM | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF217) | ○      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | .194   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF218) | □      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 4.059  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF219) | ×      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 6.081  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF220) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 8.162  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF221) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 10.070 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF222) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 12.211 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

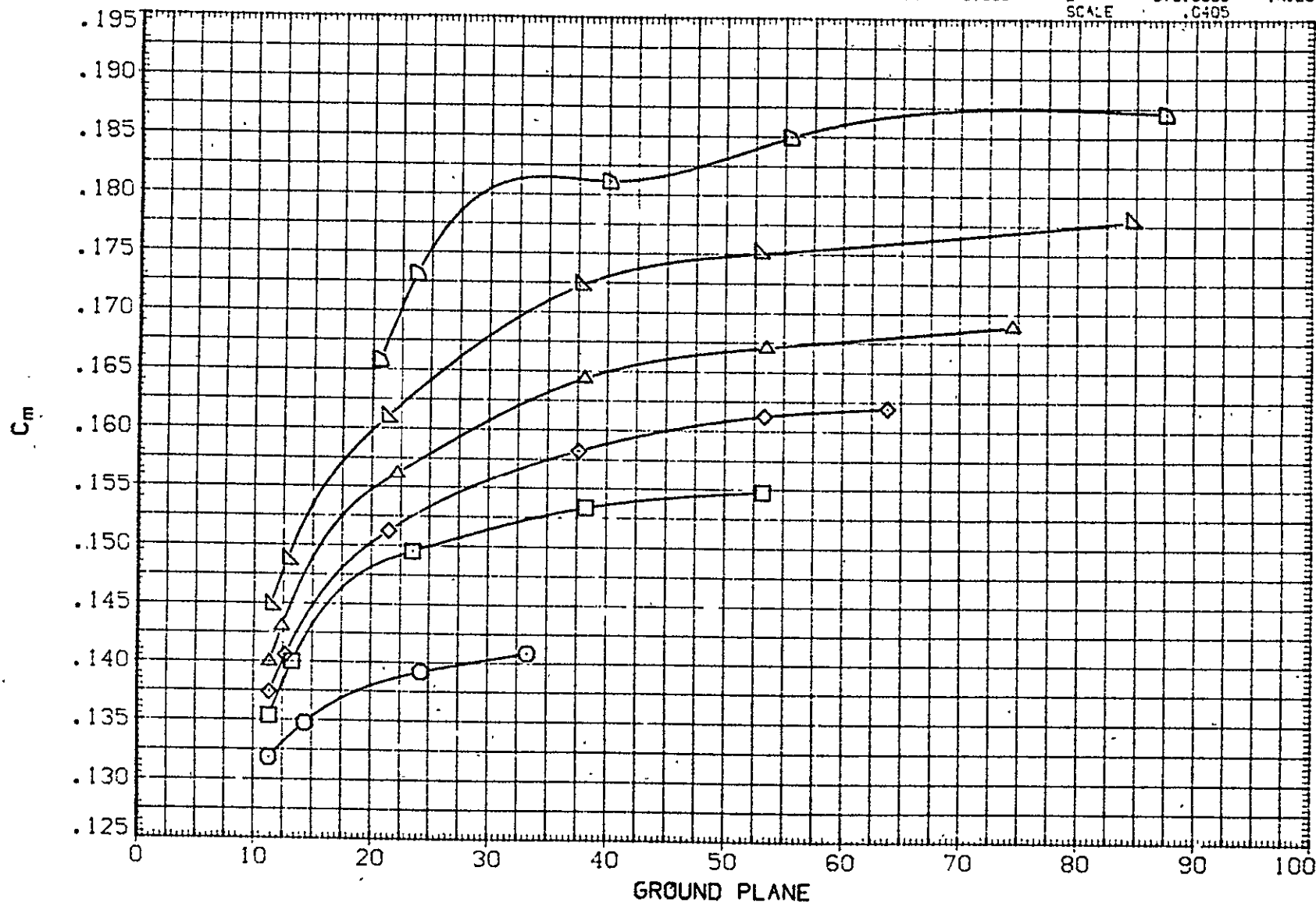


FIG 292 ALT CONFIG IN GROUND PROXIMITY, STAB = 0. FLAPS 30. IORB=6. TC OFF  
 ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF211) | ○      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | .213   | 6.000 | .000   | -5.000 | SPEF                  | 2690.0000 | SQ.FT |
| (TJF212) | □      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 4.137  | 6.000 | .000   | -5.000 | LPEF                  | 474.8100  | IN.   |
| (TJF213) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 6.140  | 6.000 | .000   | -5.000 | BPEF                  | 936.6800  | IN.   |
| (TJF214) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 8.192  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X7 |
| (TJF215) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 10.124 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF216) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 12.123 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .C405     |       |

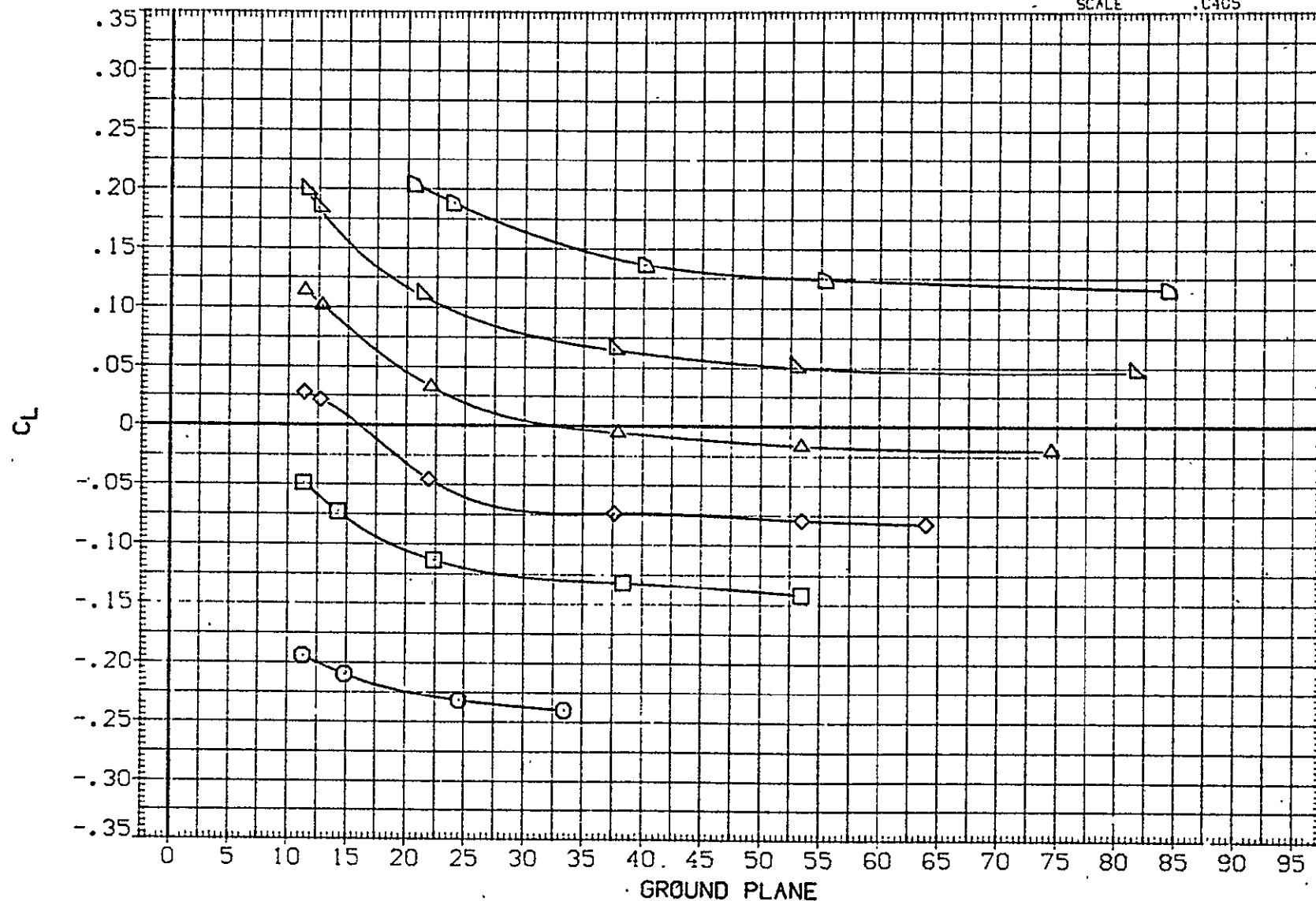


FIG 293 ALT CONFIG IN GROUND PROXIMITY, STAB = -2, FLAPS 30, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF211) | ○      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | .213   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF212) | □      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 4.137  | 6.000 | .000   | -5.000 | LREF                  | .474.8100 | 1N.   |
| (TJF213) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 6.140  | 6.000 | .000   | -5.000 | BPEF                  | 936.6800  | 1N.   |
| (TJF214) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 8.192  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | 1N.X0 |
| (TJF215) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 10.124 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | 1N.Y0 |
| (TJF216) | ◊      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 12.123 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | 1N.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

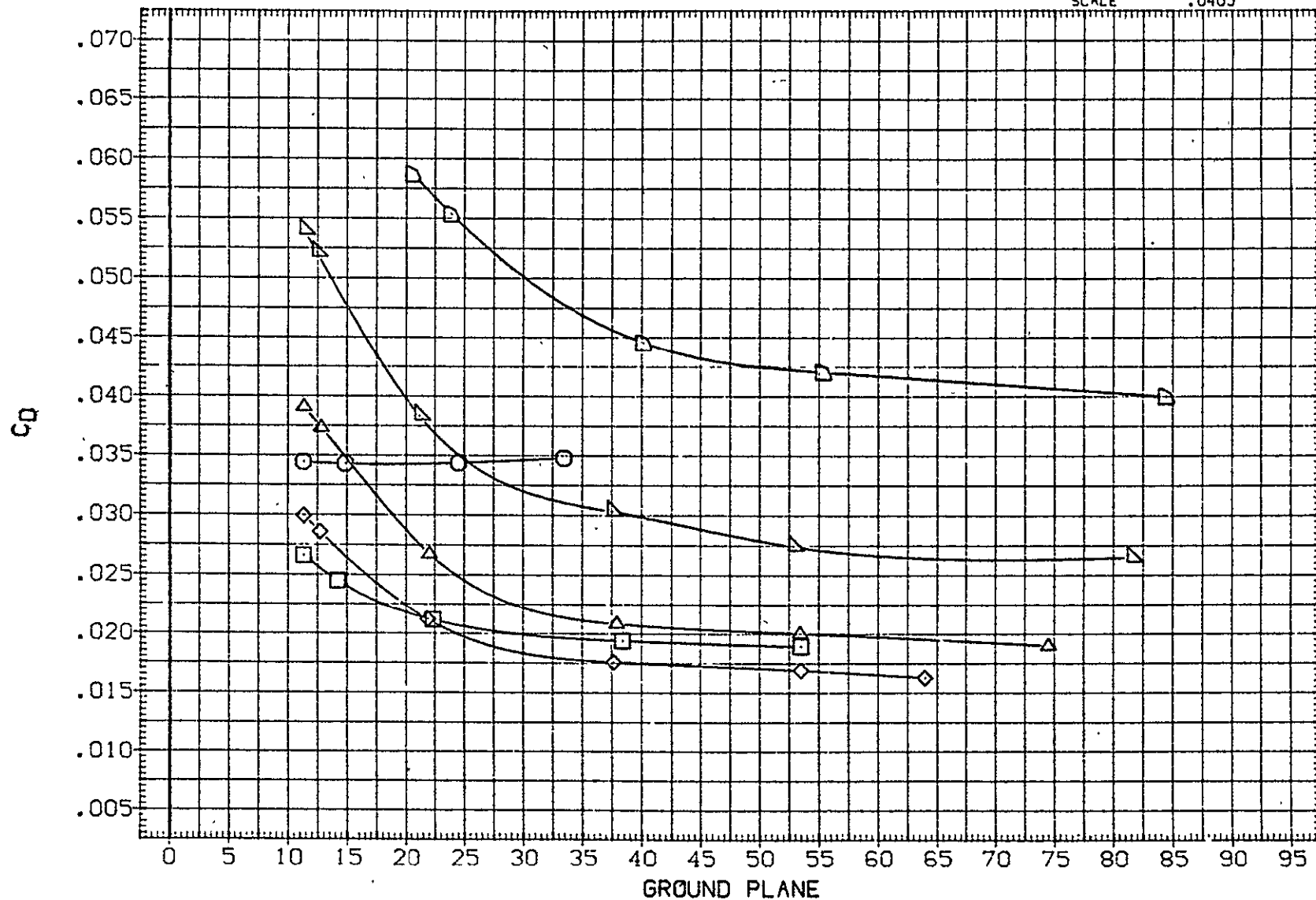


FIG 293 ALT CONFIG IN GROUND PROXIMITY, STAB = -2, FLAPS 30, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------------------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF211) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | .213               | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF212) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 4.137              | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF213) | □      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 6.140              | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF214) | △      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 8.192              | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF215) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 10.124             | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF216) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 12.123             | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |                    |       |        |        | SCALE                 | .0405     |       |

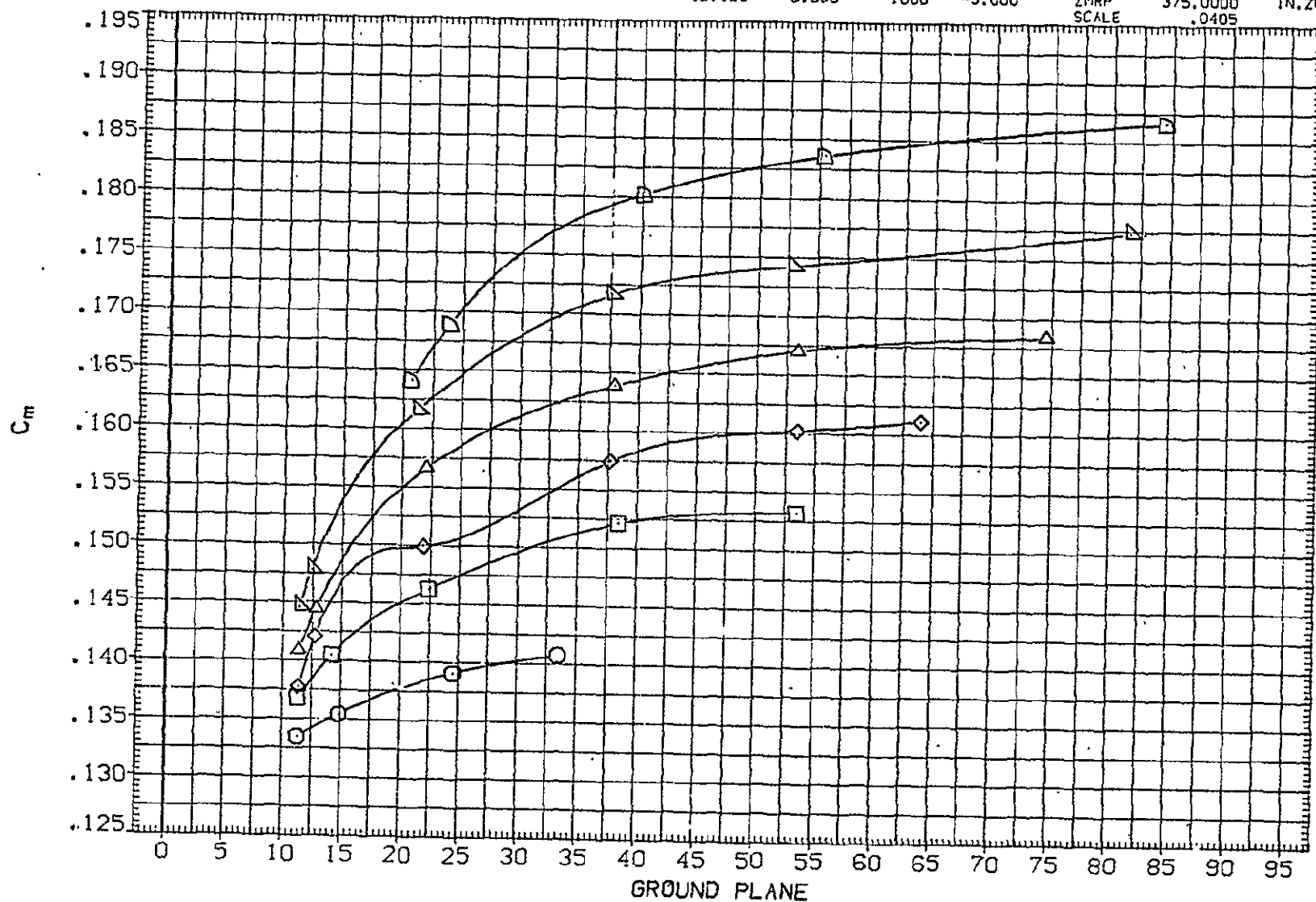


FIG 293 ALT CONFIG IN GROUND PROXIMITY, STAB = -2, FLAPS 30, IORB=6, TC OFF  
 (A)MACH = .15 ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF235) | ○      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | .234   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF236) | □      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 4.036  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF237) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 6.109  | 6.000 | .000   | -5.000 | RREF                  | 936.6800  | IN.   |
| (TJF238) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 8.123  | 6.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF239) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 10.152 | 6.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF240) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 12.091 | 6.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

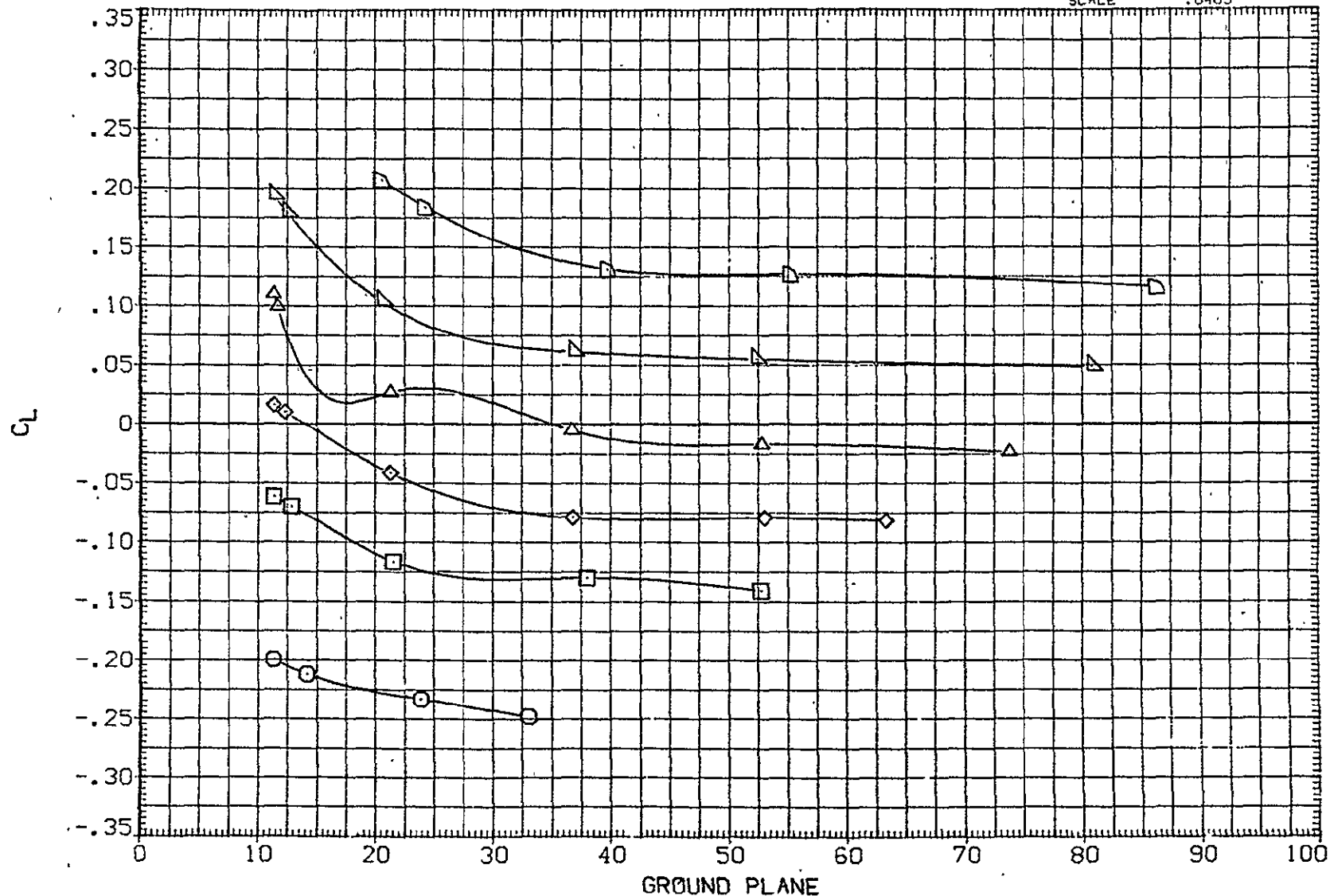


FIG 294 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

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REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF235) | ○      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | .234   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF236) | □      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 4.036  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | .IN.  |
| (TJF237) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 6.109  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF238) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 8.123  | 6.000 | .000   | -5.000 | XMHP                  | 1109.0000 | IN.XO |
| (TJF239) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 10.152 | 6.000 | .000   | -5.000 | YMHP                  | .0000     | IN.YO |
| (TJF240) | ◊      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 12.091 | 6.000 | .000   | -5.000 | ZMHP                  | 375.0000  | IN.ZO |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

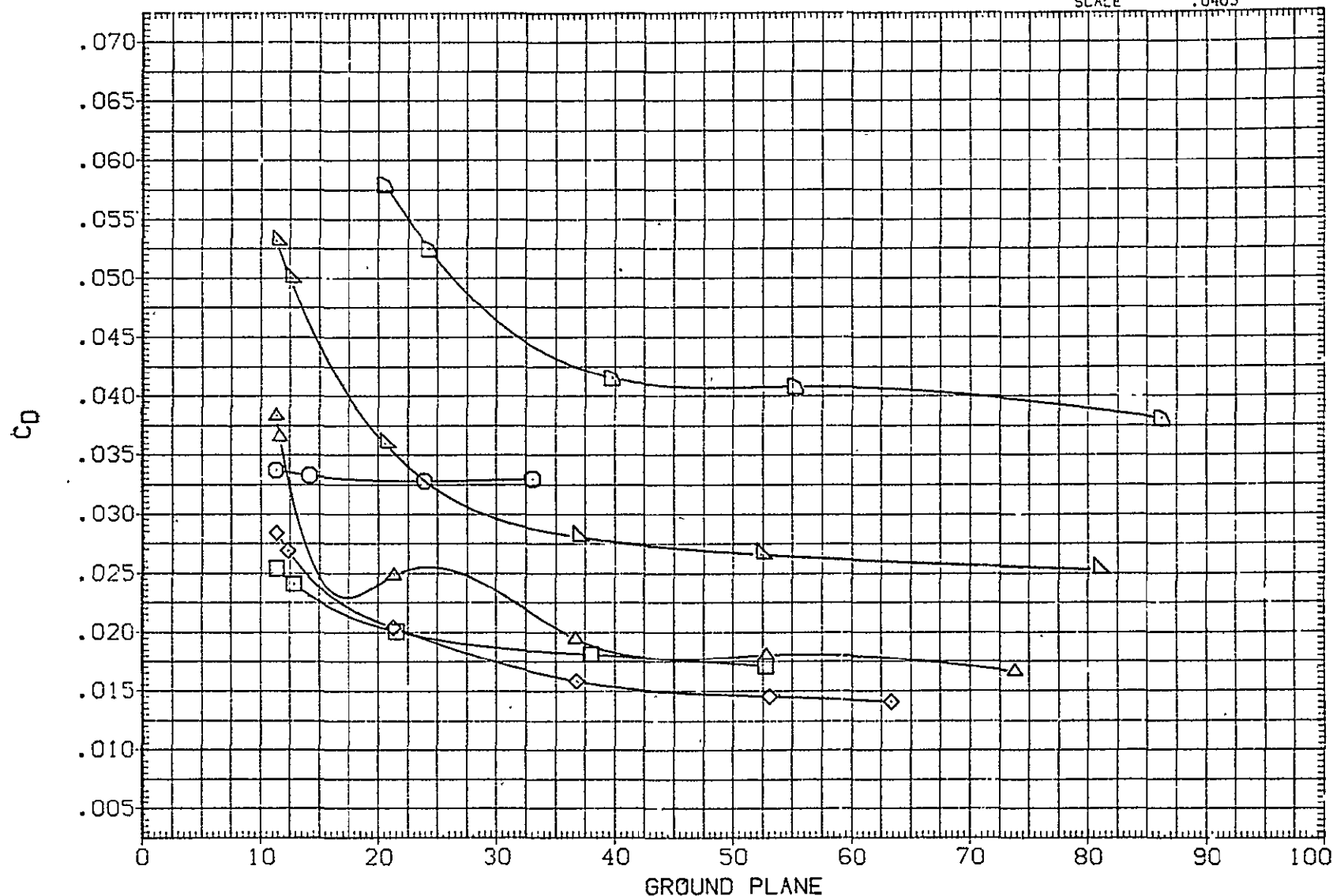


FIG 294 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDCLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF235) | ○      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | .234   | 6.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF236) | □      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 4.036  | 6.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF237) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 6.109  | 6.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF238) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 8.123  | 6.000 | .000   | -5.000 | XMHP                  | 1109.0000 | IN.X0 |
| (TJF239) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 10.152 | 6.000 | .000   | -5.000 | YMHP                  | .0000     | IN.Y0 |
| (TJF240) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 12.091 | 6.000 | .000   | -5.000 | ZMHP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

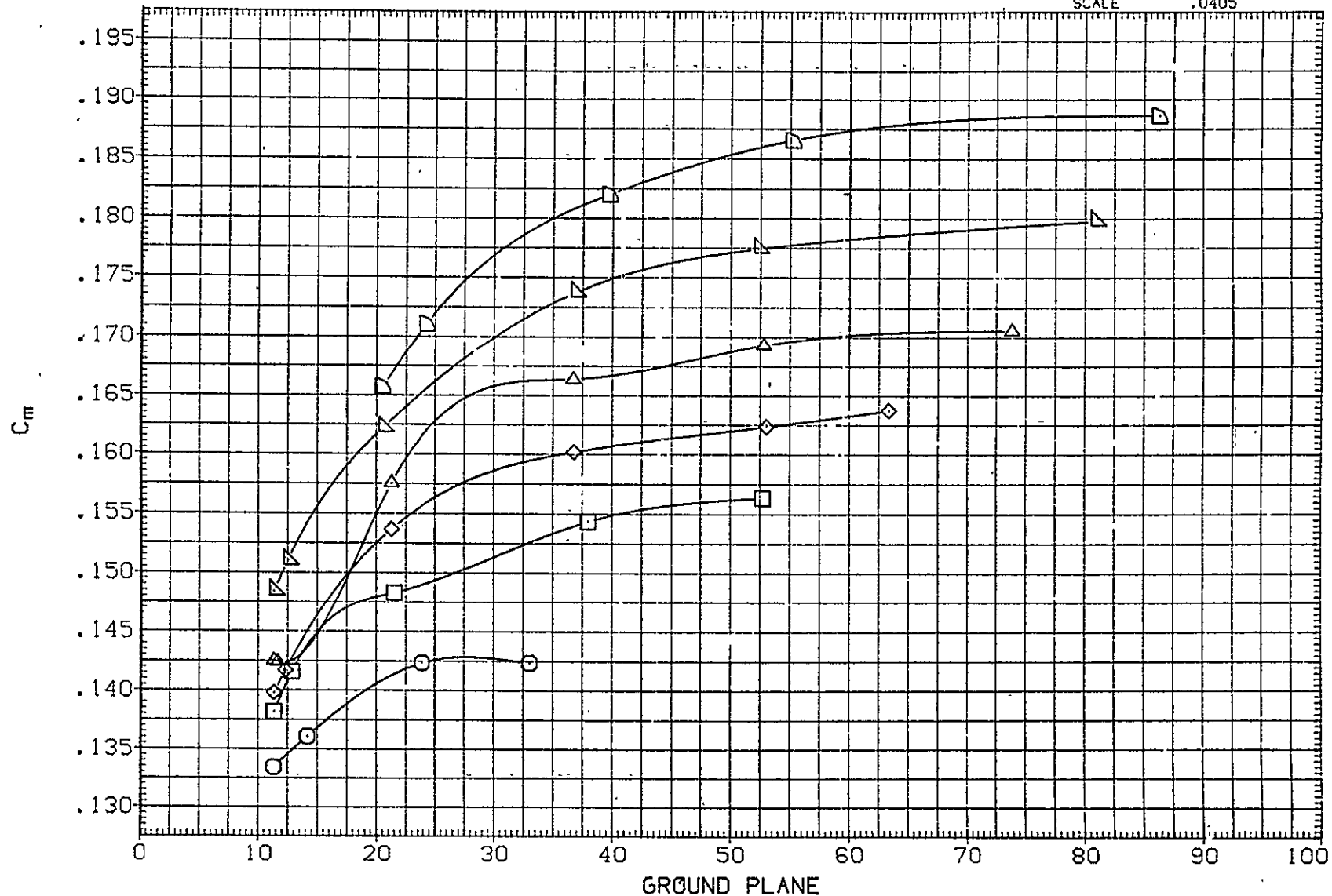


FIG 294 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=6, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA <sub>W</sub> | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------------------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF506) | ○      | (CA-8) K3.1TS7 F20TS401G5.3.5 | .111               | 8.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF507) | □      | (CA-8) K3.1TS7 F20TS401G5.3.5 | 4.088              | 8.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF508) | ◇      | (CA-8) K3.1TS7 F20TS401G5.3.5 | 6.138              | 8.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF509) | △      | (CA-8) K3.1TS7 F20TS401G5.3.5 | 8.116              | 8.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
|          |        |                               |                    |       |         |        | YMRP                  | .0000     | IN.Y0 |
|          |        |                               |                    |       |         |        | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                               |                    |       |         |        | SCALE                 | .0405     |       |

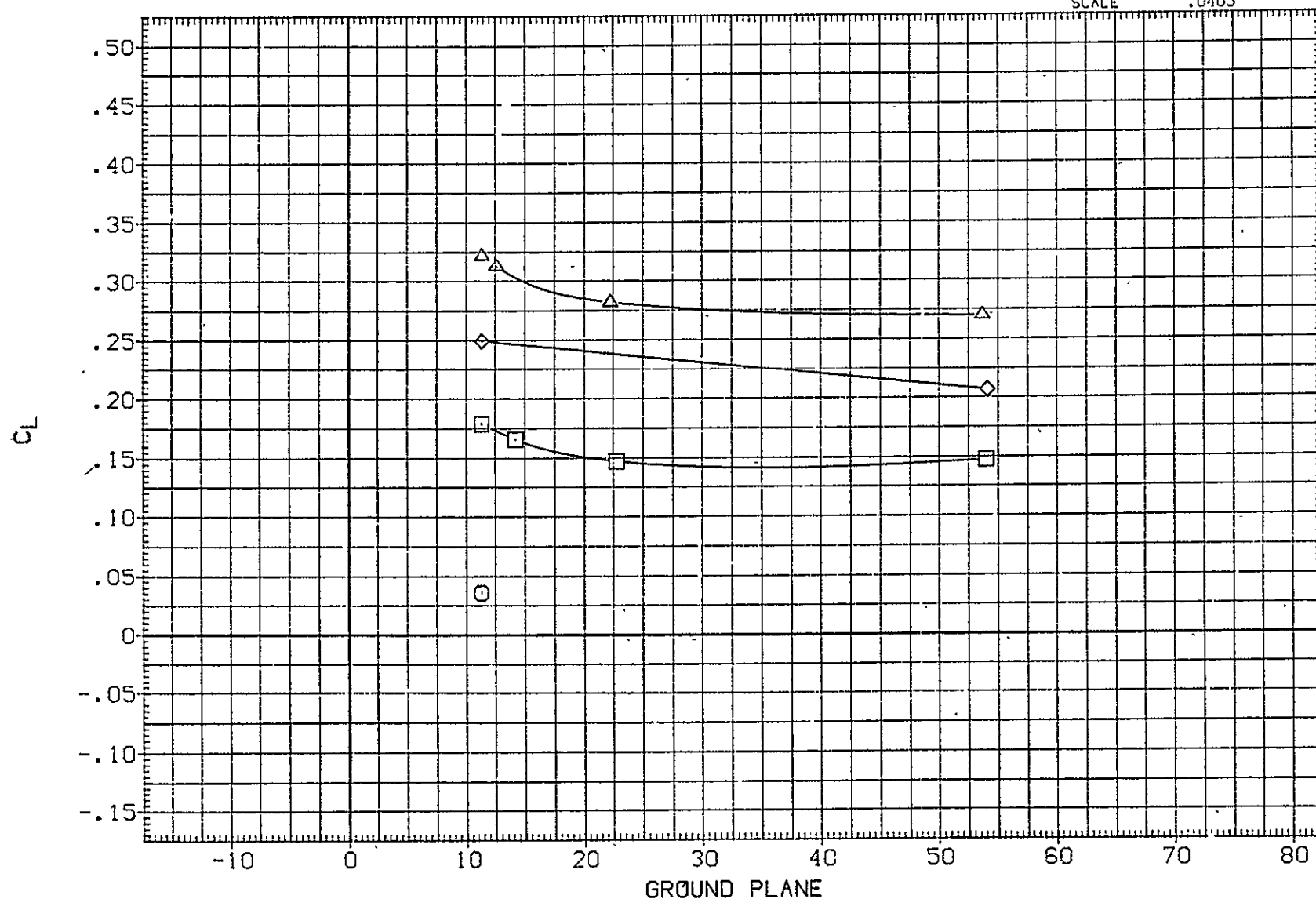


FIG 295 ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF, FLAPS 20, IORB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF506) | ○      | (CA-8) K3.1TS7 F20TS40IG5.3.5 | .111   | 8.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT  |
| (TJF507) | □      | (CA-8) K3.1TS7 F20TS40IG5.3.5 | 4.088  | 8.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF508) | ◇      | (CA-8) K3.1TS7 F20TS40IG5.3.5 | 6.138  | 8.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF509) | △      | (CA-8) K3.1TS7 F20TS40IG5.3.5 | 8.116  | 8.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
|          |        |                               |        |       |         |        | YMRP                  | .0000     | IN. Y0 |
|          |        |                               |        |       |         |        | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                               |        |       |         |        | SCALE                 | .0405     |        |



FIG 295 ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF, FLAPS 20, IORB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA <sub>W</sub> | I <sub>ORB</sub> | B <sub>D</sub> FLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------------------|------------------|---------------------|--------|-----------------------|-----------|-------|
| (TJF506) | ○      | (CA-8) K3.1TS7 F20TS40165.3.5 | .111               | 8.000            | -11.700             | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF507) | □      | (CA-8) K3.1TS7 F20TS40165.3.5 | 4.088              | 8.000            | -11.700             | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF508) | ◇      | (CA-8) K3.1TS7 F20TS40165.3.5 | 6.138              | 8.000            | -11.700             | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF509) | △      | (CA-8) K3.1TS7 F20TS40165.3.5 | 8.116              | 8.000            | -11.700             | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
|          |        |                               |                    |                  |                     |        | YMRP                  | .0000     | IN.Y0 |
|          |        |                               |                    |                  |                     |        | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                               |                    |                  |                     |        | SCALE                 | .0405     |       |

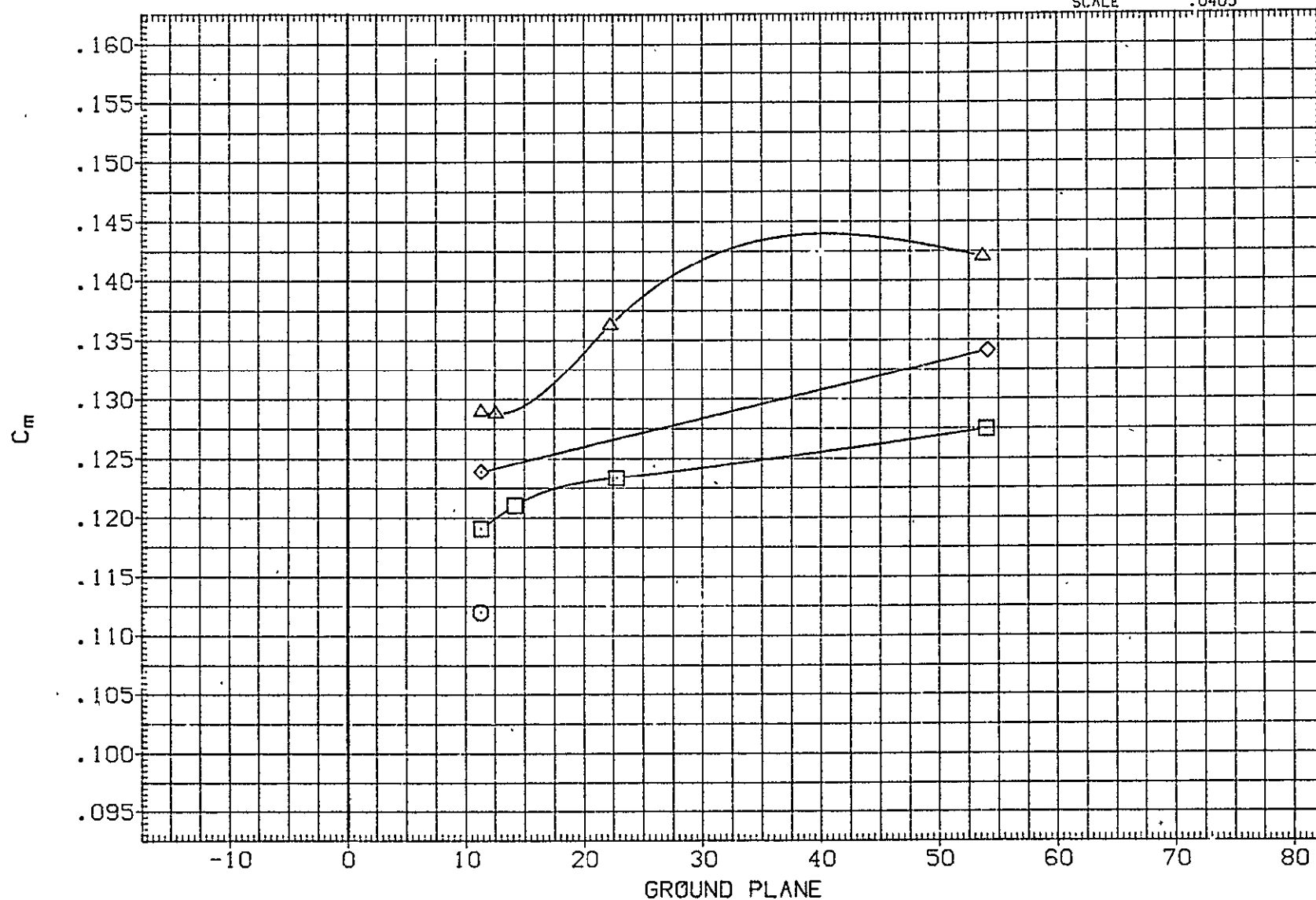


FIG 295 ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF, FLAPS 20, I<sub>ORB</sub>=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA W | IORC  | BOFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|---------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF500) | ○      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | .171    | 8.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SG.FT |
| (TJF501) | □      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 4.131   | 8.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF502) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 6.158   | 8.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF503) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 8.117   | 8.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.XO |
| (TJF504) | ▽      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 10.134  | 8.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.YO |
| (TJF505) | ◻      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 12.118  | 8.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                                     |         |       |         |        | SCALE                 | .0405     |       |

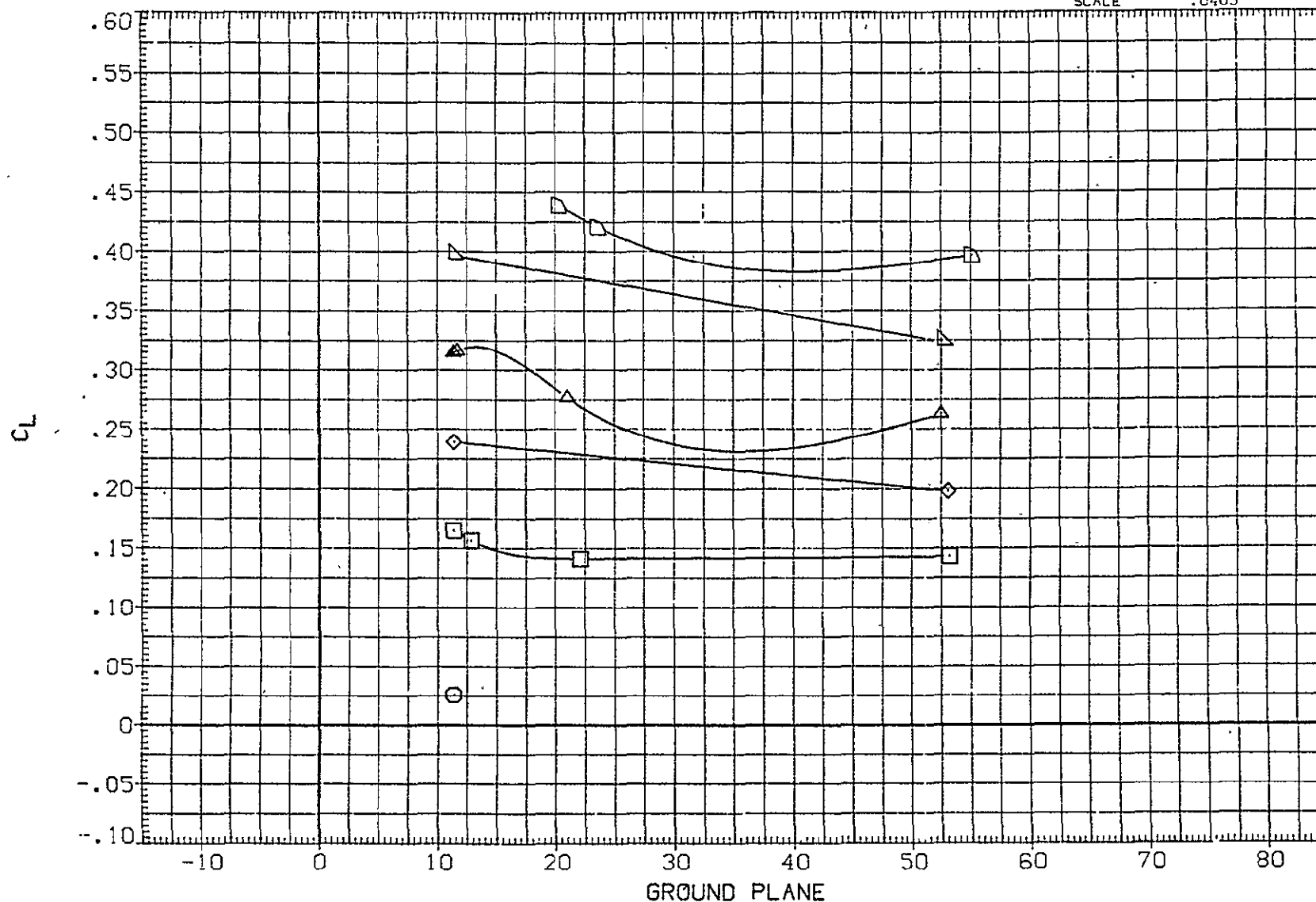


FIG 296 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------------------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF500) | ○      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | .171               | 8.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF501) | □      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 4.131              | 8.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF502) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 6.158              | 8.000 | -11.700 | -5.000 | BPEF                  | 936.6800  | IN.   |
| (TJF503) | △      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 8.117              | 8.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF504) | ▽      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 10.134             | 8.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF505) | ◻      | (CA-8) K3.1TS7H15.6.1F20TS401G5.3.5 | 12.118             | 8.000 | -11.700 | -5.000 | ZMPP                  | 375.0000  | IN.Z0 |
|          |        |                                     |                    |       |         |        | SCALE                 | .0405     |       |

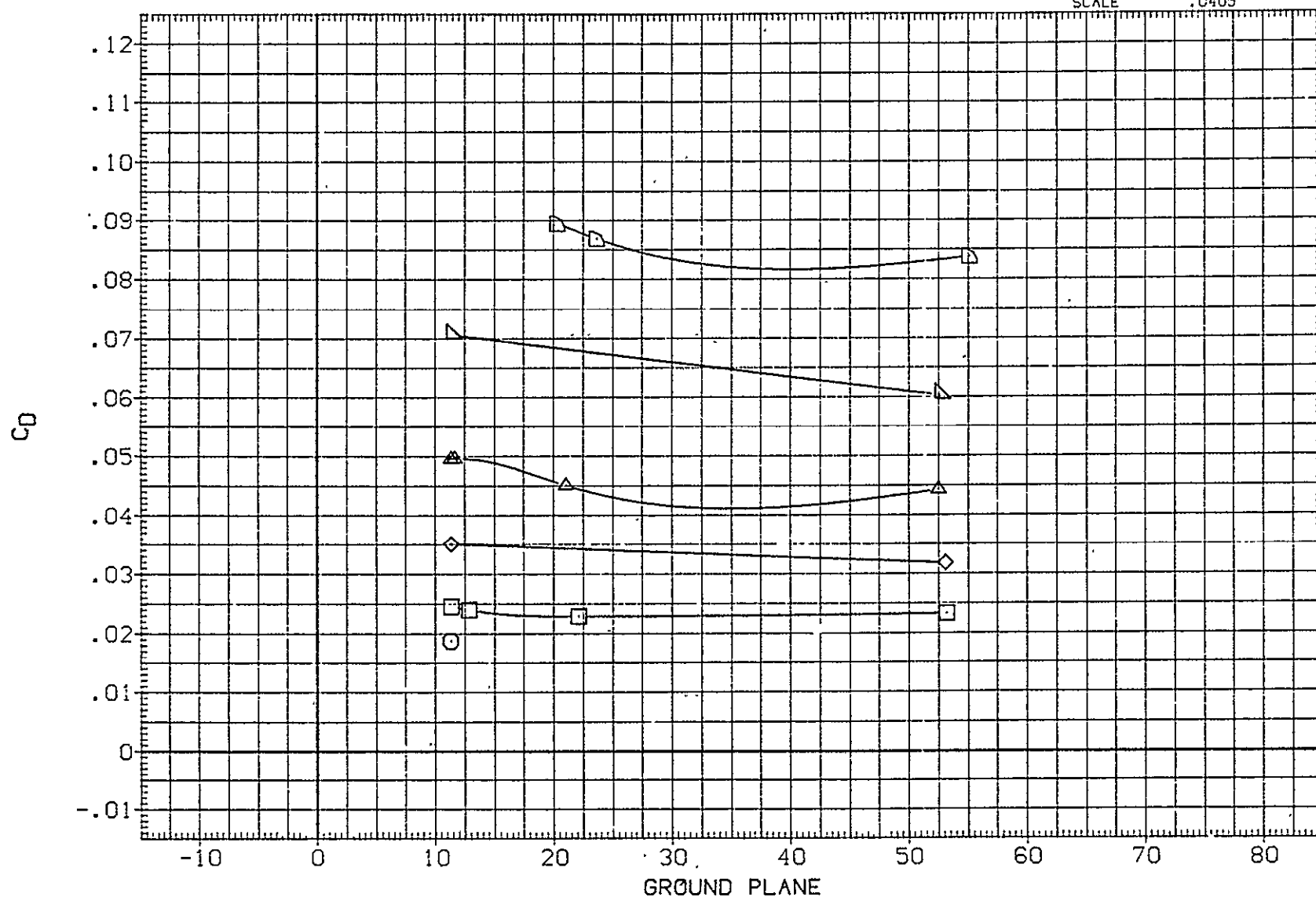


FIG 296 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF500) | ○      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | .171   | 8.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF501) | □      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 4.131  | 8.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF502) | ◇      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 6.158  | 8.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF503) | △      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 8.117  | 8.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.XO |
| (TJF504) | ▽      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 10.134 | 8.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.YO |
| (TJF505) | ◻      | (CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5 | 12.118 | 8.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                                     |        |       |         |        | SCALE                 | .0495     |       |

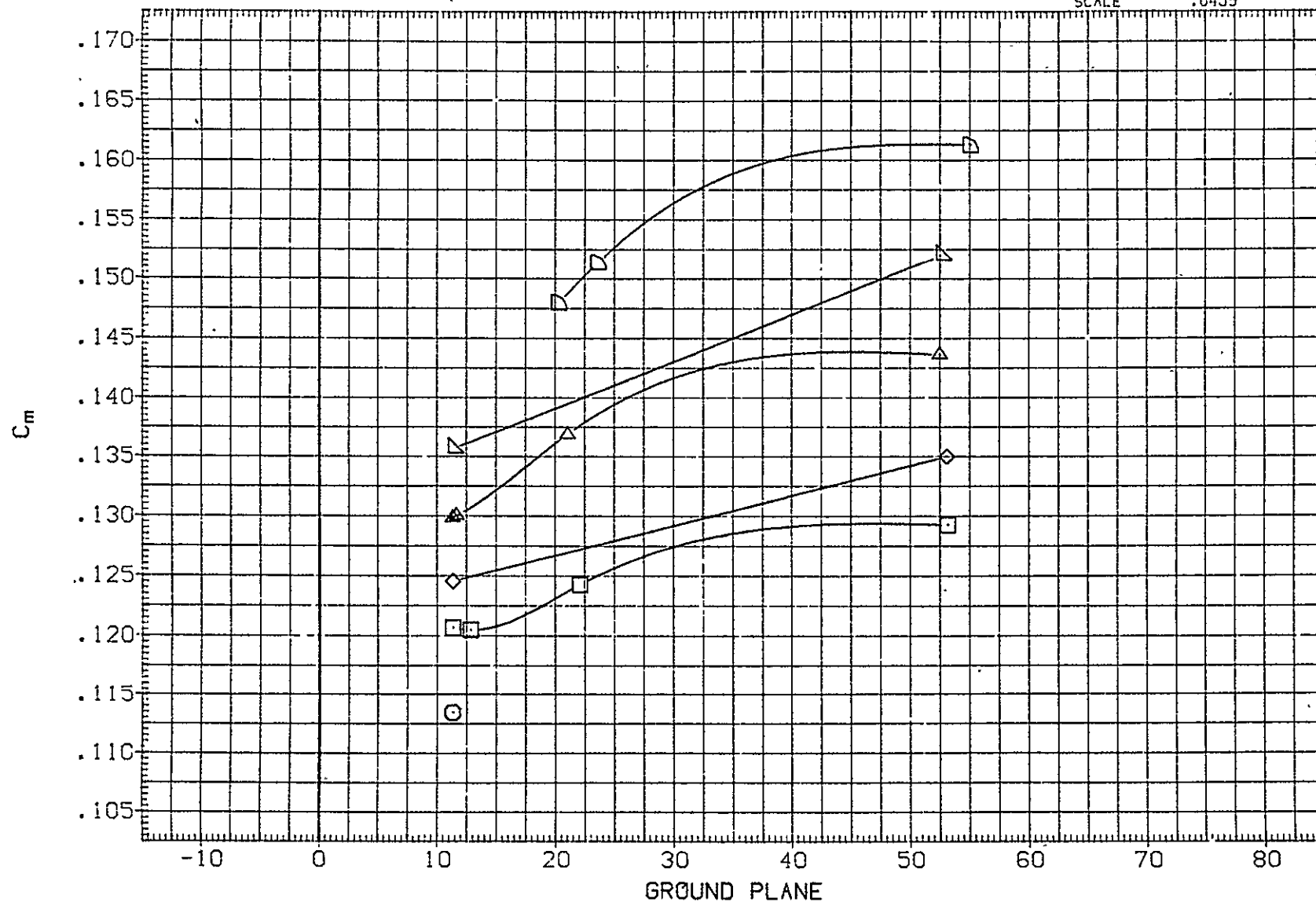


FIG 296 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA W | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|---------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF291) | □      | (CA-8) K3.1TS7 F30TS40165.3.5 | .231    | 8.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SC.FT |
| (TJF292) | ○      | (CA-8) K3.1TS7 F30TS40165.3.5 | 4.088   | 8.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF293) | ◇      | (CA-8) K3.1TS7 F30TS40165.3.5 | 6.232   | 8.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF294) | △      | (CA-8) K3.1TS7 F30TS40165.3.5 | 8.170   | 8.000 | -11.700 | -5.000 | XMPP                  | 1109.0000 | IN.XO |
| (TJF295) | ▽      | (CA-8) K3.1TS7 F30TS40165.3.5 | 10.141  | 8.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.YO |
| (TJF296) | ▽      | (CA-8) K3.1TS7 F30TS40165.3.5 | 12.141  | 8.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                               |         |       |         |        | SCALE                 | .0405     |       |

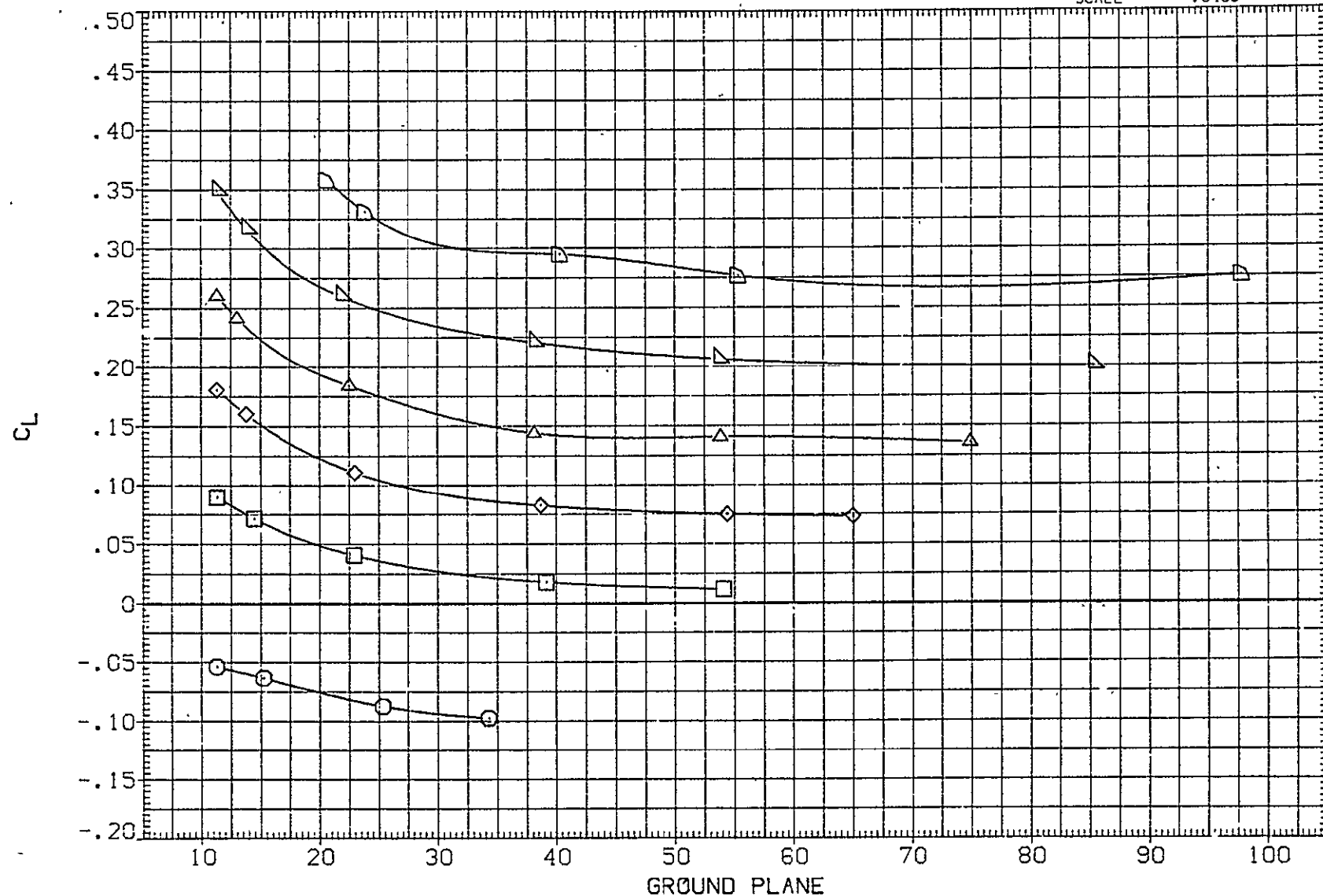


FIG 297 ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF, FLAPS 30, IORB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |
|----------|--------|-------------------------------|--------|-------|---------|--------|-----------------------|
| (TJF291) | □      | (CA-8) K3.1TS7 F30TS401G5.3.5 | .231   | 8.000 | -11.700 | -5.000 | SREF 2690.0000 50.FT  |
| (TJF292) | ◇      | (CA-8) K3.1TS7 F30TS401G5.3.5 | 4.088  | 8.000 | -11.700 | -5.000 | LREF 474.8100 IN.     |
| (TJF293) | △      | (CA-8) K3.1TS7 F30TS401G5.3.5 | 6.232  | 8.000 | -11.700 | -5.000 | BREF 936.6800 IN.     |
| (TJF294) | ▽      | (CA-8) K3.1TS7 F30TS401G5.3.5 | 8.170  | 8.000 | -11.700 | -5.000 | XMRP 1109.0000 IN.X0  |
| (TJF295) | ◇      | (CA-8) K3.1TS7 F30TS401G5.3.5 | 10.141 | 8.000 | -11.700 | -5.000 | YMRP .0000 IN.Y0      |
| (TJF296) | □      | (CA-8) K3.1TS7 F30TS401G5.3.5 | 12.141 | 8.000 | -11.700 | -5.000 | ZMRP 375.0000 IN.Z0   |
|          |        |                               |        |       |         |        | SCALE .0405           |

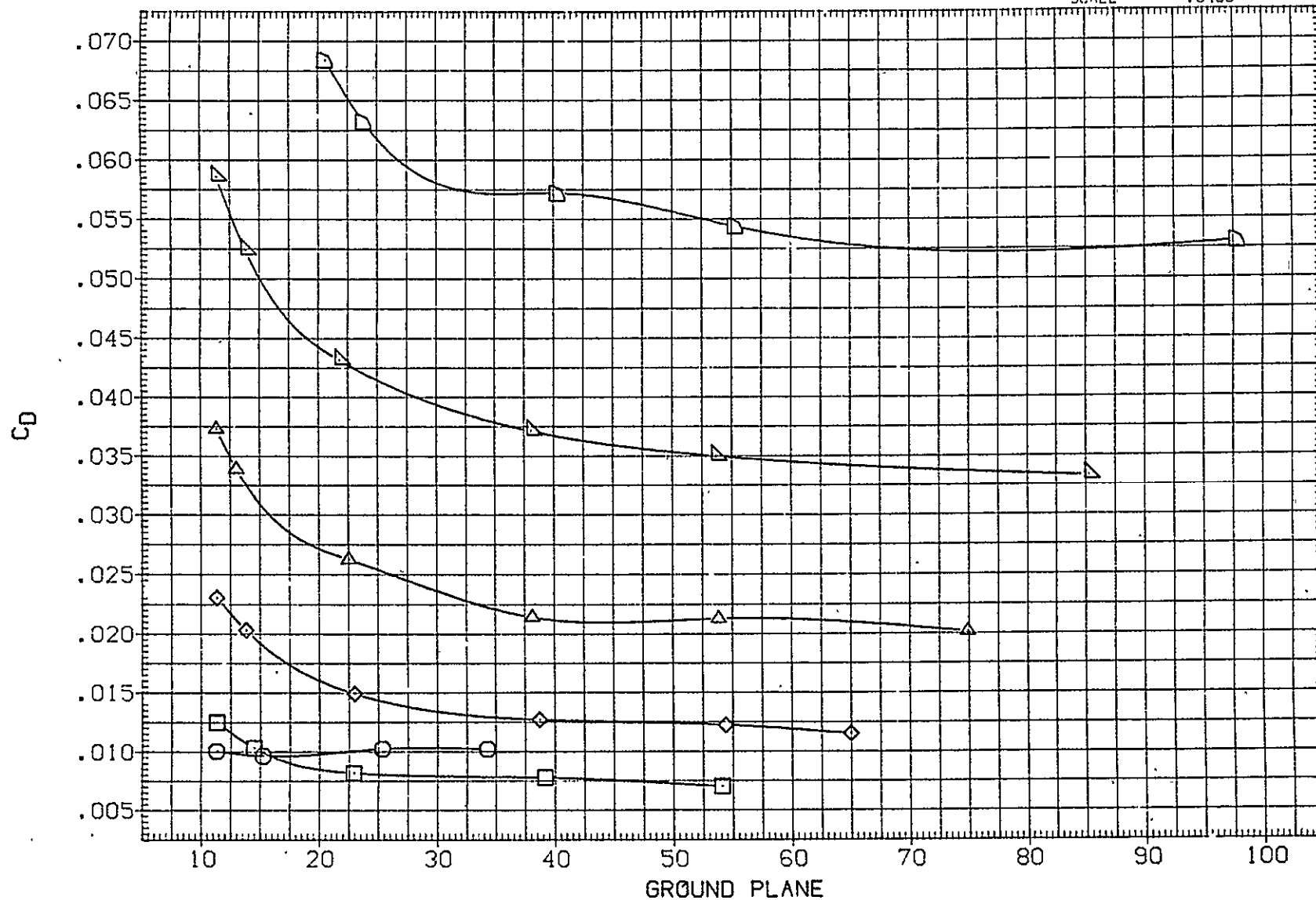


FIG 297 ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF, FLAPS 30, IORB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .16

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF291) | ○      | (CA-8) K3.1TS7 F30TS40165.3.5 | .231   | 8.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF292) | □      | (CA-8) K3.1TS7 F30TS40165.3.5 | 4.088  | 8.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF293) | ◇      | (CA-8) K3.1TS7 F30TS40165.3.5 | 6.232  | 8.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF294) | △      | (CA-8) K3.1TS7 F30TS40165.3.5 | 8.170  | 8.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF295) | ▽      | (CA-8) K3.1TS7 F30TS40165.3.5 | 10.141 | 8.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF296) | ◁      | (CA-8) K3.1TS7 F30TS40165.3.5 | 12.141 | 8.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                               |        |       |         |        | SCALE                 | .0405     |       |

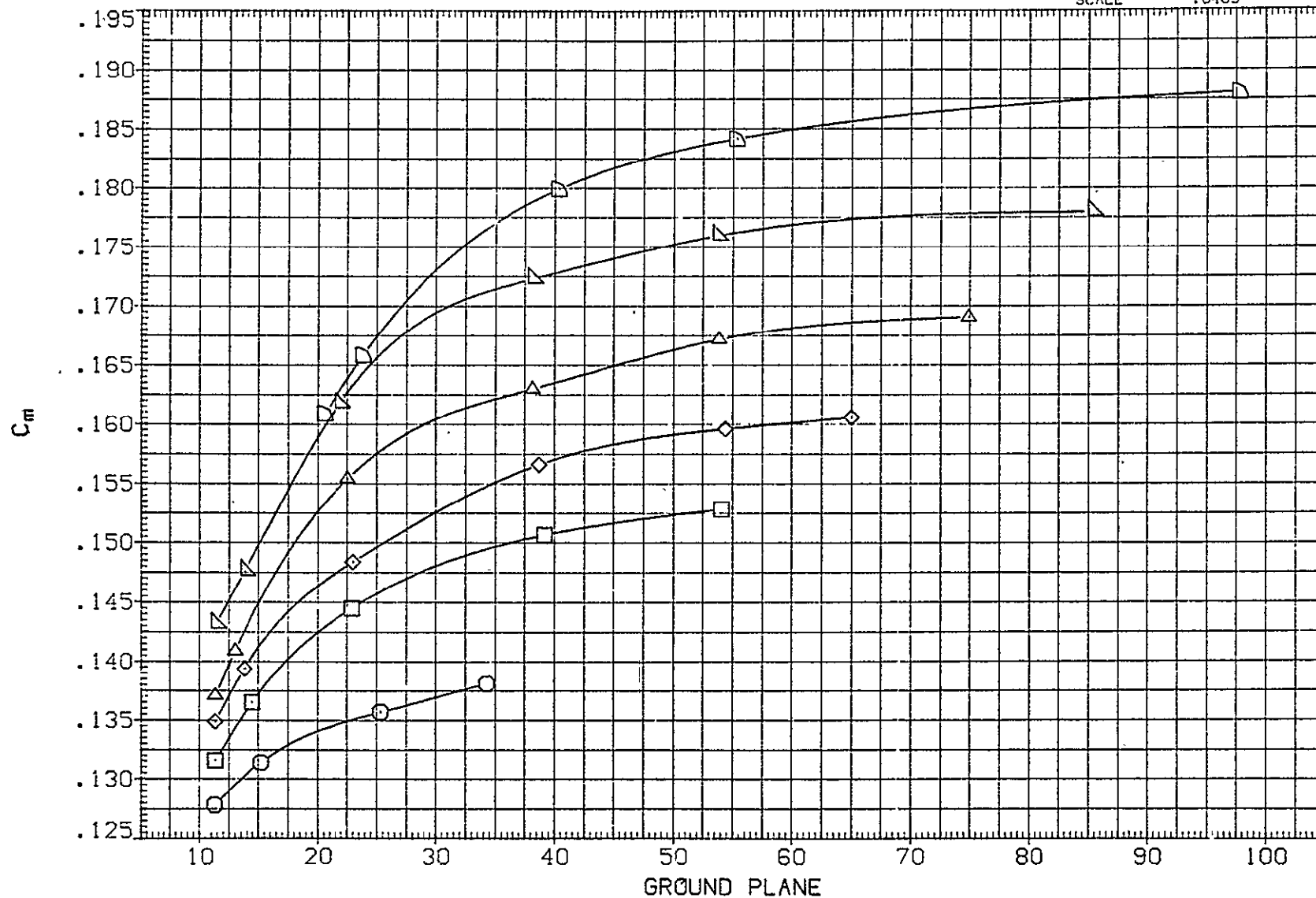


FIG 297 ALT CONFIG IN GROUND PROXIMITY. HORIZ OFF. FLAPS 30. IORB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .16

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF285) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | .120   | 8.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF286) | □      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 4.113  | 8.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF287) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 6.125  | 8.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF288) | △      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 8.199  | 8.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF289) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 10.130 | 8.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF290) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 12.171 | 8.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0105     |       |

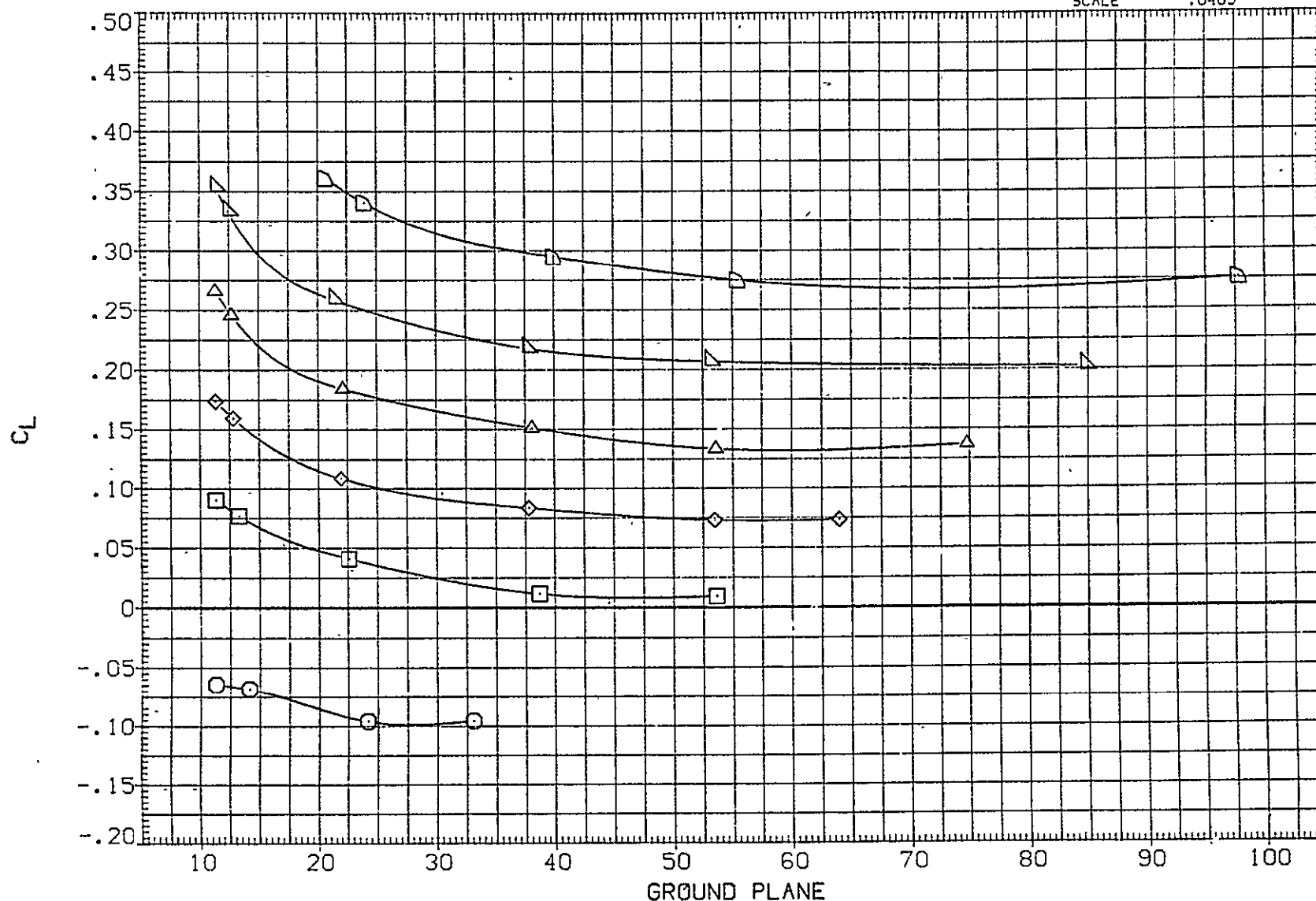


FIG 298 ALT CONFIG IN GROUND PROXIMITY, STAB = 2, FLAPS 30, IORB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

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REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BOFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF285) | □      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | .120   | 8.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF286) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 4.113  | 8.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF287) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 6.125  | 8.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF288) | △      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 8.199  | 8.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF289) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 10.130 | 8.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF290) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 12.171 | 8.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

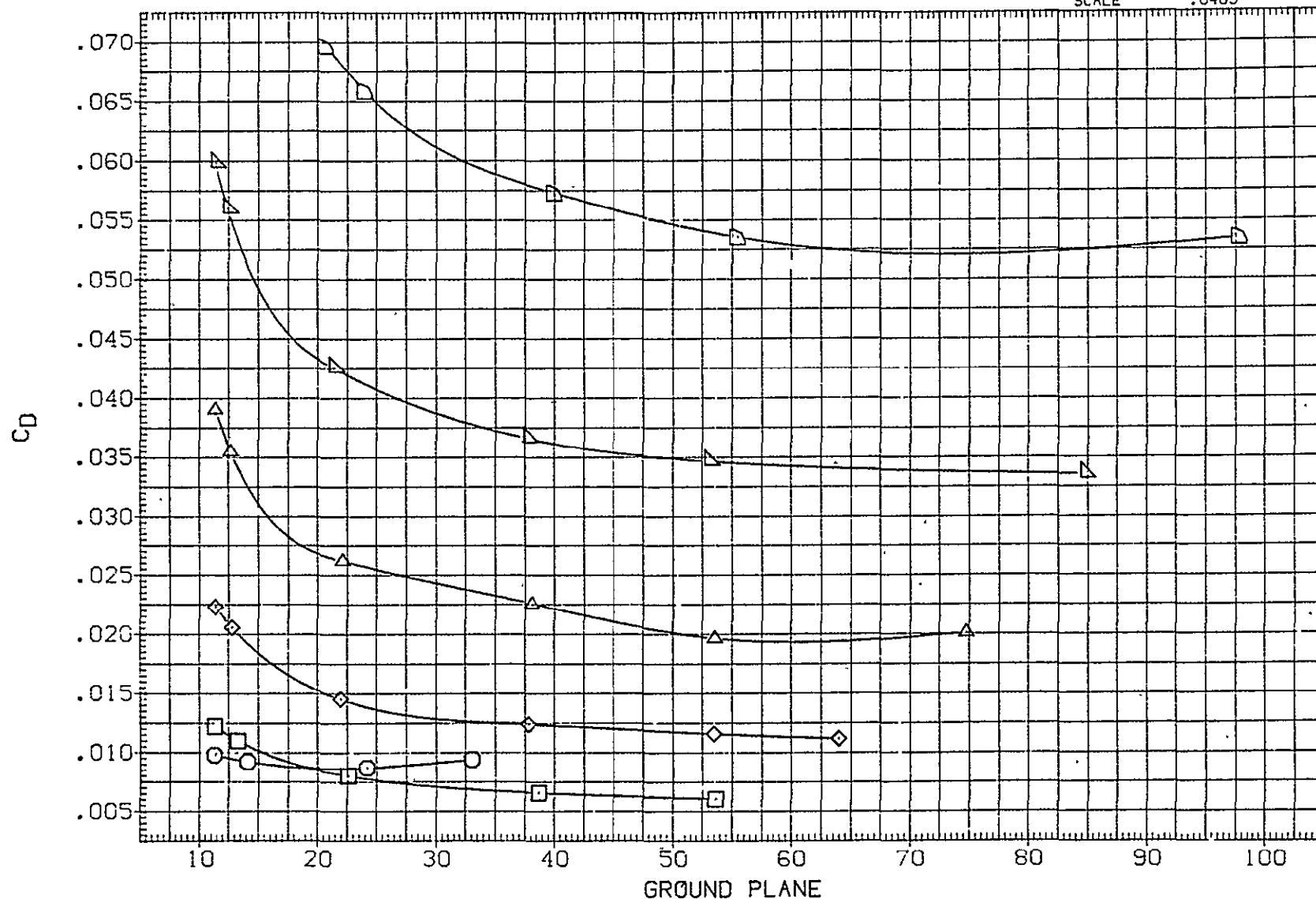


FIG 298 ALT CONFIG IN GROUND PROXIMITY. STAB = 2. FLAPS 30, IORB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | ICRB  | BDFLAP  | EI EVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|---------|-----------------------|-----------|--------|
| (TJF285) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | .120   | 8.000 | -11.700 | -5.000  | SREF                  | 2690.0000 | 50. FT |
| (TJF286) | □      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 4.113  | 8.000 | -11.700 | -5.000  | LREF                  | 474.8100  | IN.    |
| (TJF287) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 6.125  | 8.000 | -11.700 | -5.000  | BREF                  | 936.6800  | IN.    |
| (TJF288) | △      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 8.199  | 8.000 | -11.700 | -5.000  | XMRP                  | 1109.0000 | IN. X0 |
| (TJF289) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 10.130 | 8.000 | -11.700 | -5.000  | YMRP                  | .0000     | IN. Y0 |
| (TJF290) | ◊      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 12.171 | 8.000 | -11.700 | -5.000  | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |         |         | SCALE                 | .0405     |        |

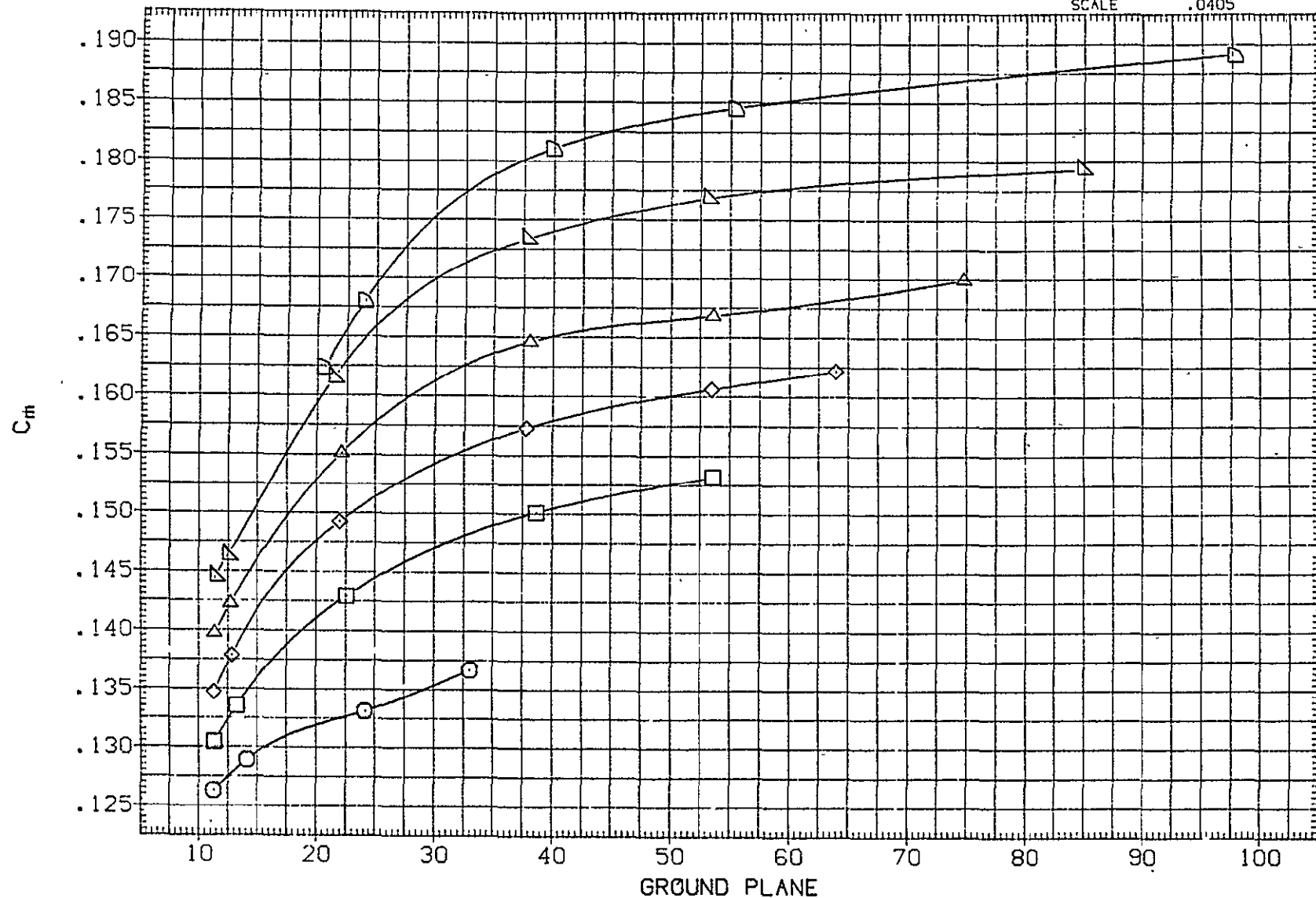


FIG 298 ALT CONFIG IN GROUND PROXIMITY, STAB = 2, FLAPS 30, ICRB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | ICRB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF273) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | .208   | 8.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50.FT  |
| (TJF274) | □      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 4.170  | 8.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF275) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 6.144  | 8.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF276) | △      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 8.179  | 8.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF277) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 10.178 | 8.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF278) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 12.184 | 8.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

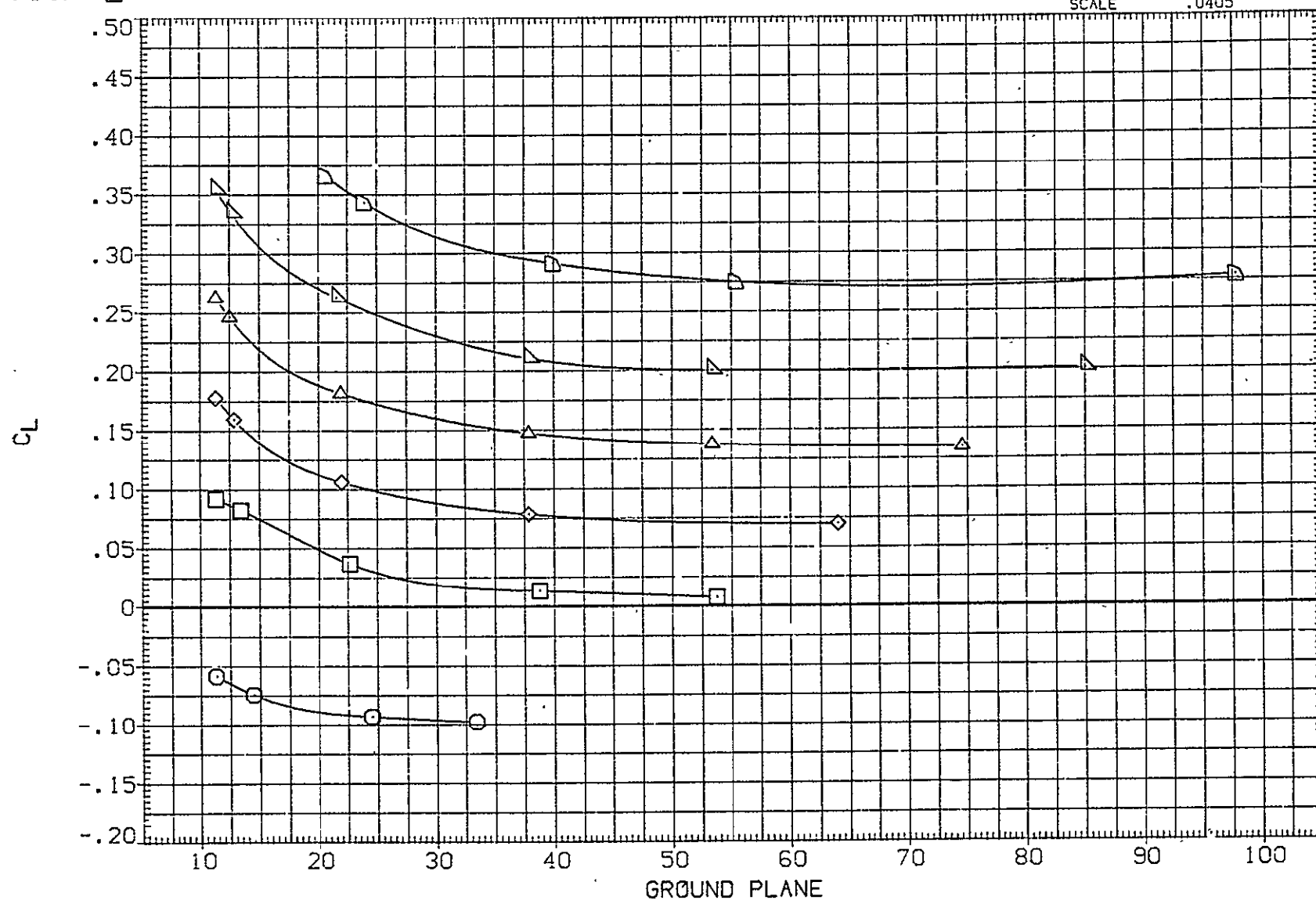


FIG 299 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, FLAPS 30, ICRB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BOFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF273) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | .208   | 8.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF274) | □      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 4.170  | 8.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF275) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 6.144  | 8.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF276) | △      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 8.179  | 8.000 | -11.700 | -5.000 | XMPP                  | 1109.0000 | IN. X0 |
| (TJF277) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 10.178 | 8.000 | -11.700 | -5.000 | YMPP                  | .0000     | IN. Y0 |
| (TJF278) | ◊      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 12.184 | 8.000 | -11.700 | -5.000 | ZMPP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .C405     |        |

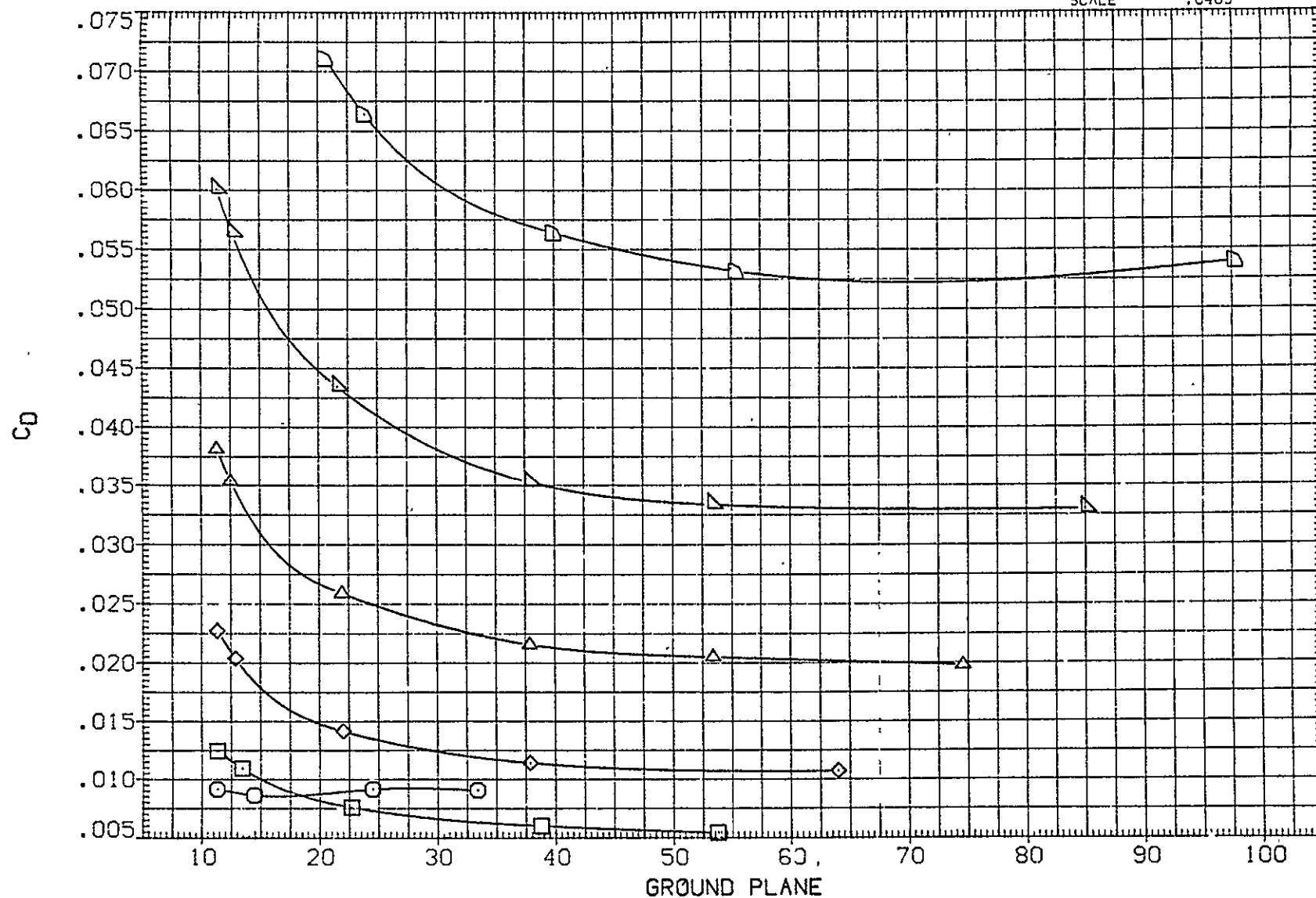


FIG 299 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, FLAPS 30, IORB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

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PRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | EI EVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|---------|-----------------------|-----------|-------|
| (TJF273) | □      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | .208   | 8.000 | -11.700 | -5.000  | SREF                  | 2690.0000 | SQ.FT |
| (TJF274) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 4.170  | 8.000 | -11.700 | -5.000  | LREF                  | 474.8100  | IN.   |
| (TJF275) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 6.144  | 8.000 | -11.700 | -5.000  | BREF                  | 936.6800  | IN.   |
| (TJF276) | △      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 8.179  | 8.000 | -11.700 | -5.000  | XMPP                  | 1109.0000 | IN.X0 |
| (TJF277) | △      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 10.178 | 8.000 | -11.700 | -5.000  | YMRP                  | .0000     | IN.Y0 |
| (TJF278) | △      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 12.184 | 8.000 | -11.700 | -5.000  | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |         | SCALE                 | .0405     |       |

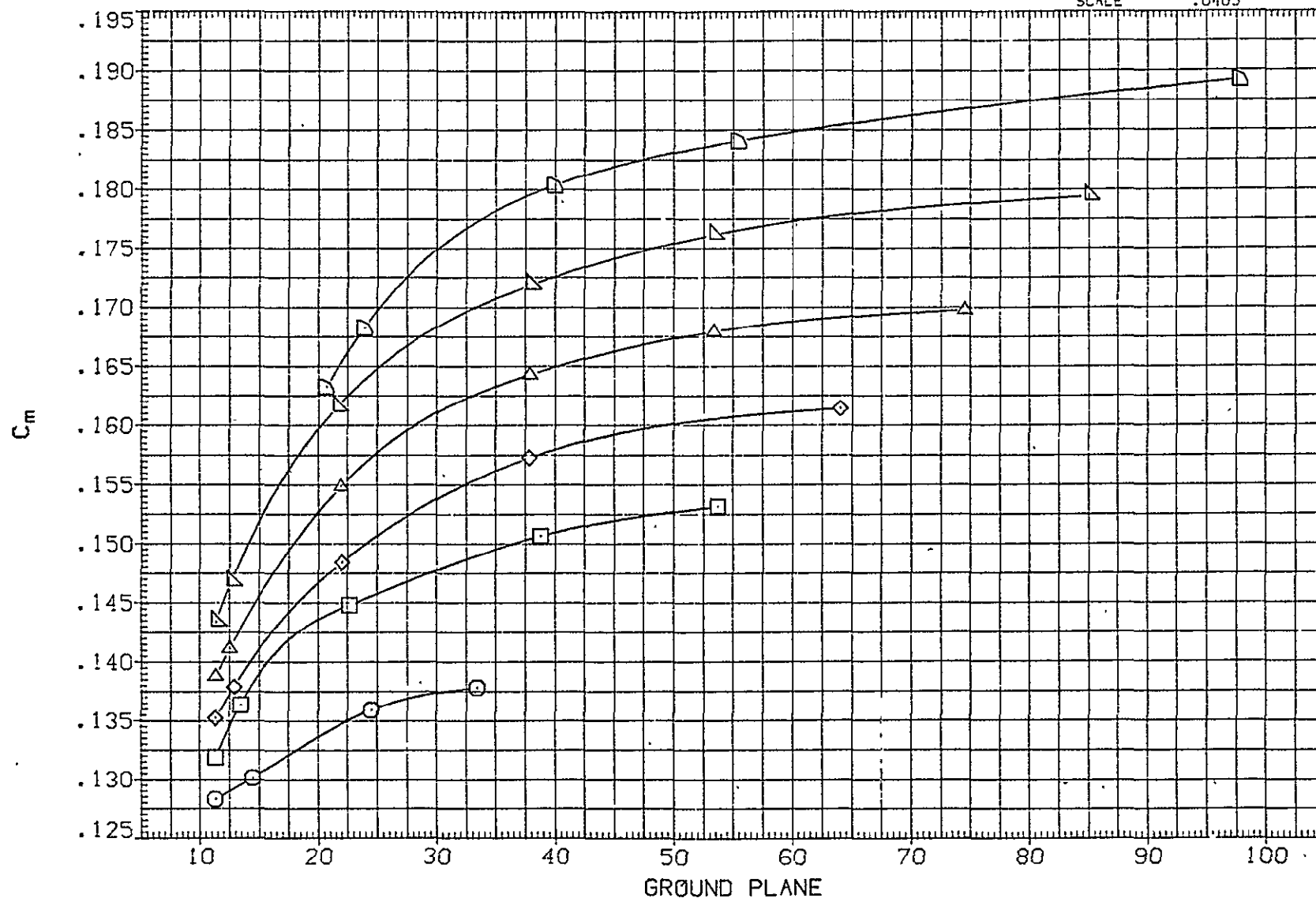


FIG 299 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, FLAPS 30, IORB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF279) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | .160   | 8.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF280) | □      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 4.141  | 8.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF281) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 6.199  | 8.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF282) | △      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 8.128  | 8.000 | -11.700 | -5.000 | XM RP                 | 1109.0000 | IN.X0 |
| (TJF283) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 10.137 | 8.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF284) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 12.159 | 8.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

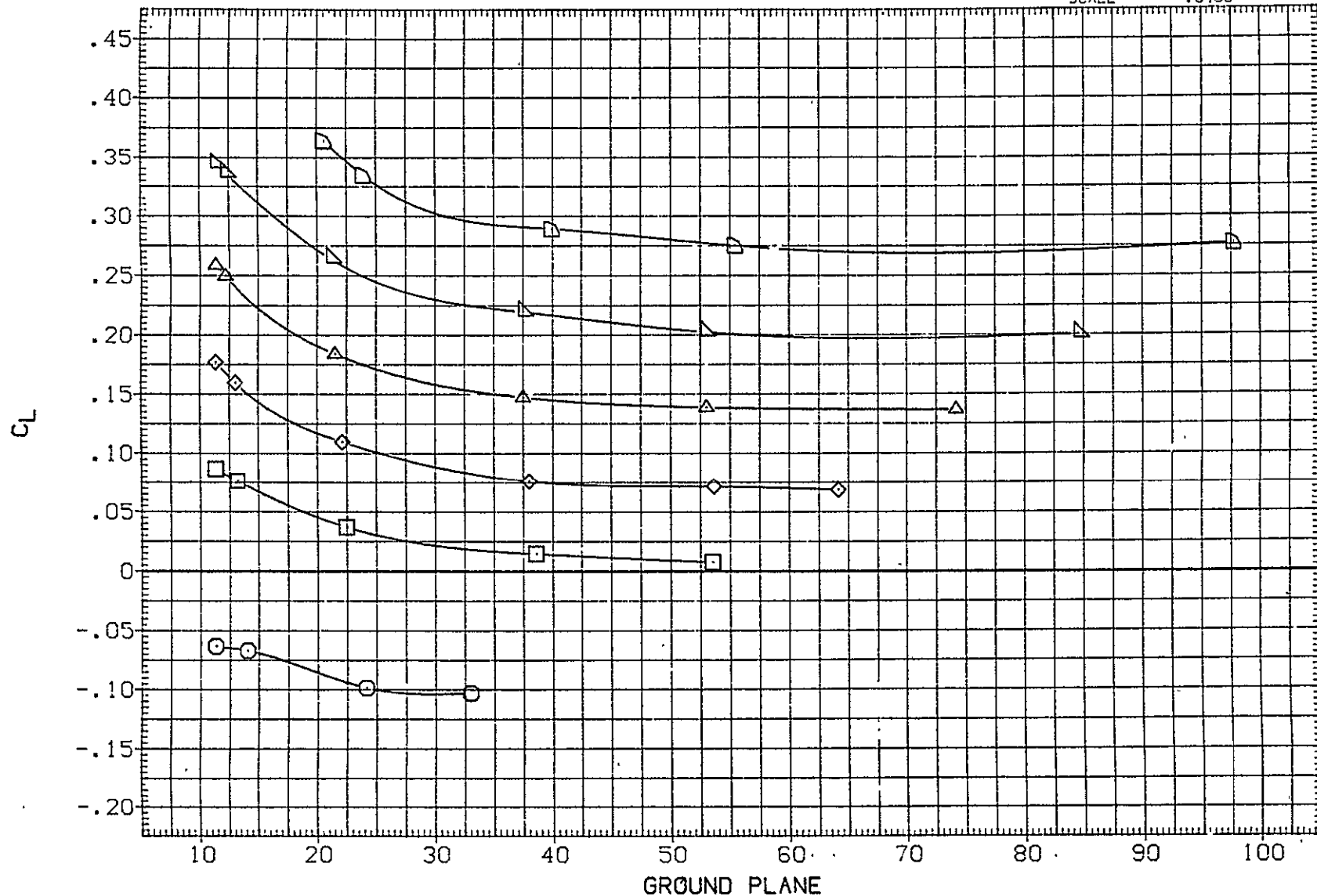


FIG 300 ALT CONFIG IN GROUND PROXIMITY, STAB = -2, FLAPS 30, IORB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

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REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | I <sub>ORB</sub> | B <sub>DFLAP</sub> | E <sub>ELEVON</sub> | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------------------|------------------|--------------------|---------------------|-----------------------|-----------|--------|
| (TJF279) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | .160               | 8.000            | -11.700            | -5.000              | SREF                  | 2690.0000 | 50. FT |
| (TJF280) | □      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 4.141              | 8.000            | -11.700            | -5.000              | LREF                  | 474.8100  | IN.    |
| (TJF281) | △      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 6.199              | 8.000            | -11.700            | -5.000              | BREF                  | 936.6800  | IN.    |
| (TJF282) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 8.128              | 8.000            | -11.700            | -5.000              | XMRP                  | 1109.0000 | IN. X0 |
| (TJF293) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 10.137             | 8.000            | -11.700            | -5.000              | YMRP                  | .0000     | IN. Y0 |
| (TJF284) | ◊      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 12.159             | 8.000            | -11.700            | -5.000              | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |                    |                  |                    |                     | SCALE                 | .0405     |        |

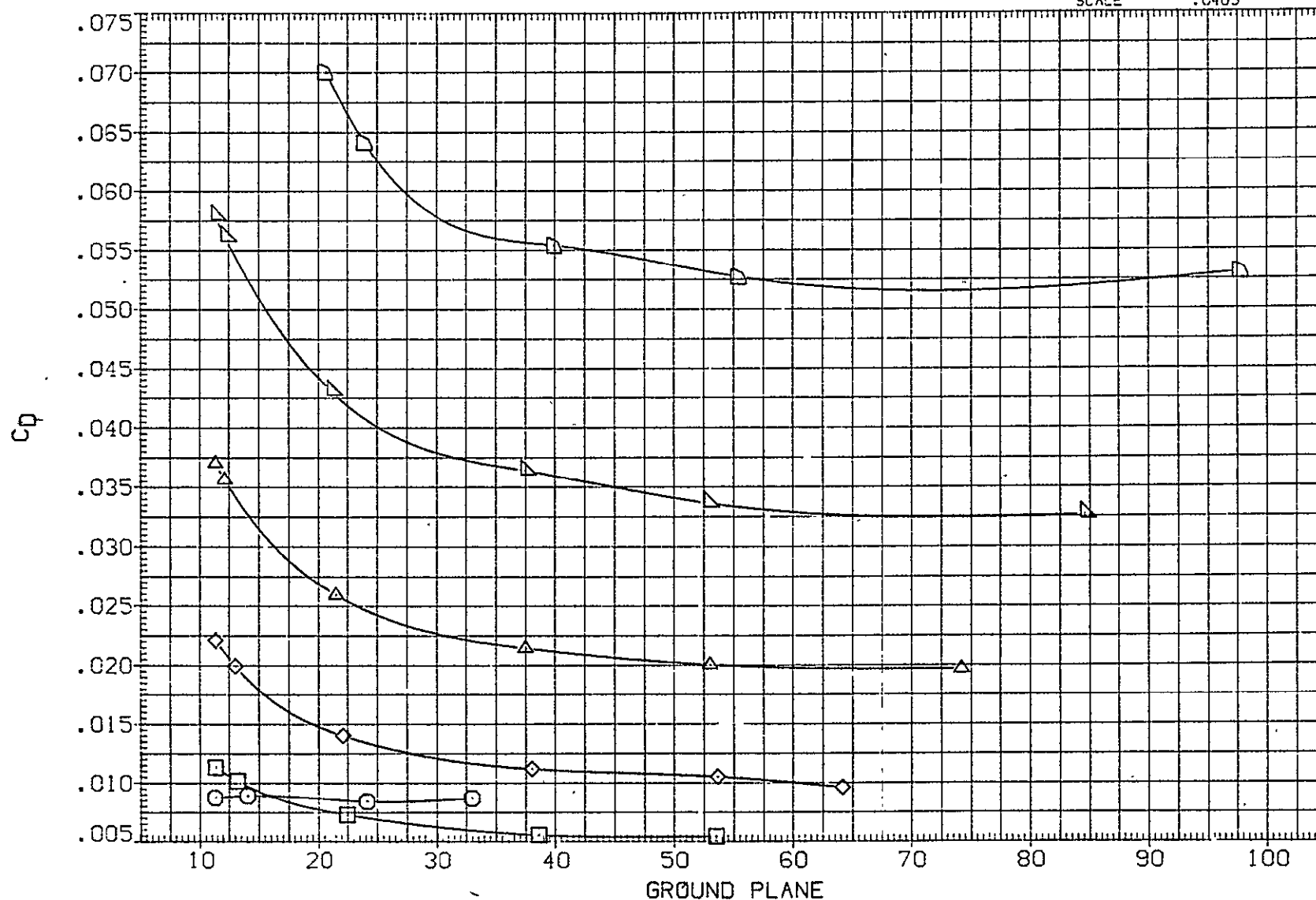


FIG 300 ALT CONFIG IN GROUND PROXIMITY, STAB = -2, FLAPS 30, I<sub>ORB</sub>=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------------------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF279) | □      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | .160               | 8.000 | -11.700 | -5.000 | SPEF                  | 2690.0000 | SQ.FT |
| (TJF280) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 4.141              | 8.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF281) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 6.199              | 8.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF282) | △      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 8.128              | 8.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.XO |
| (TJF283) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 10.137             | 8.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.YO |
| (TJF284) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 12.159             | 8.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                                     |                    |       |         |        | SCALE                 | .0405     |       |

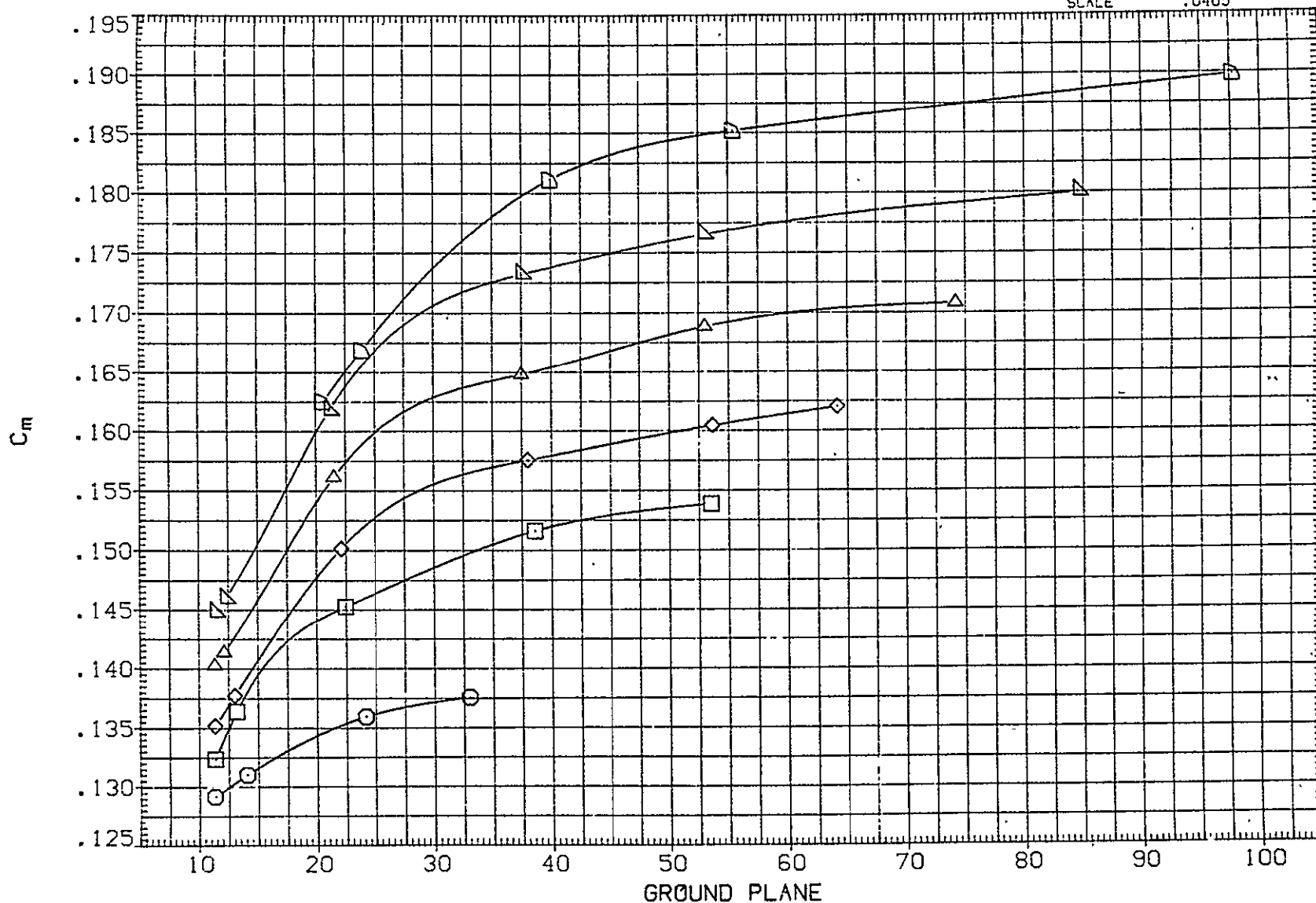


FIG 300 ALT CONFIG IN GROUND PROXIMITY. STAB = -2. FLAPS 30, IORB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|--------|
| (TJF297) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | .263   | 8.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT  |
| (TJF298) | □      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 4.047  | 8.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF299) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 6.135  | 8.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF300) | △      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 8.209  | 8.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF301) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 10.143 | 8.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF302) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 12.252 | 8.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |        |

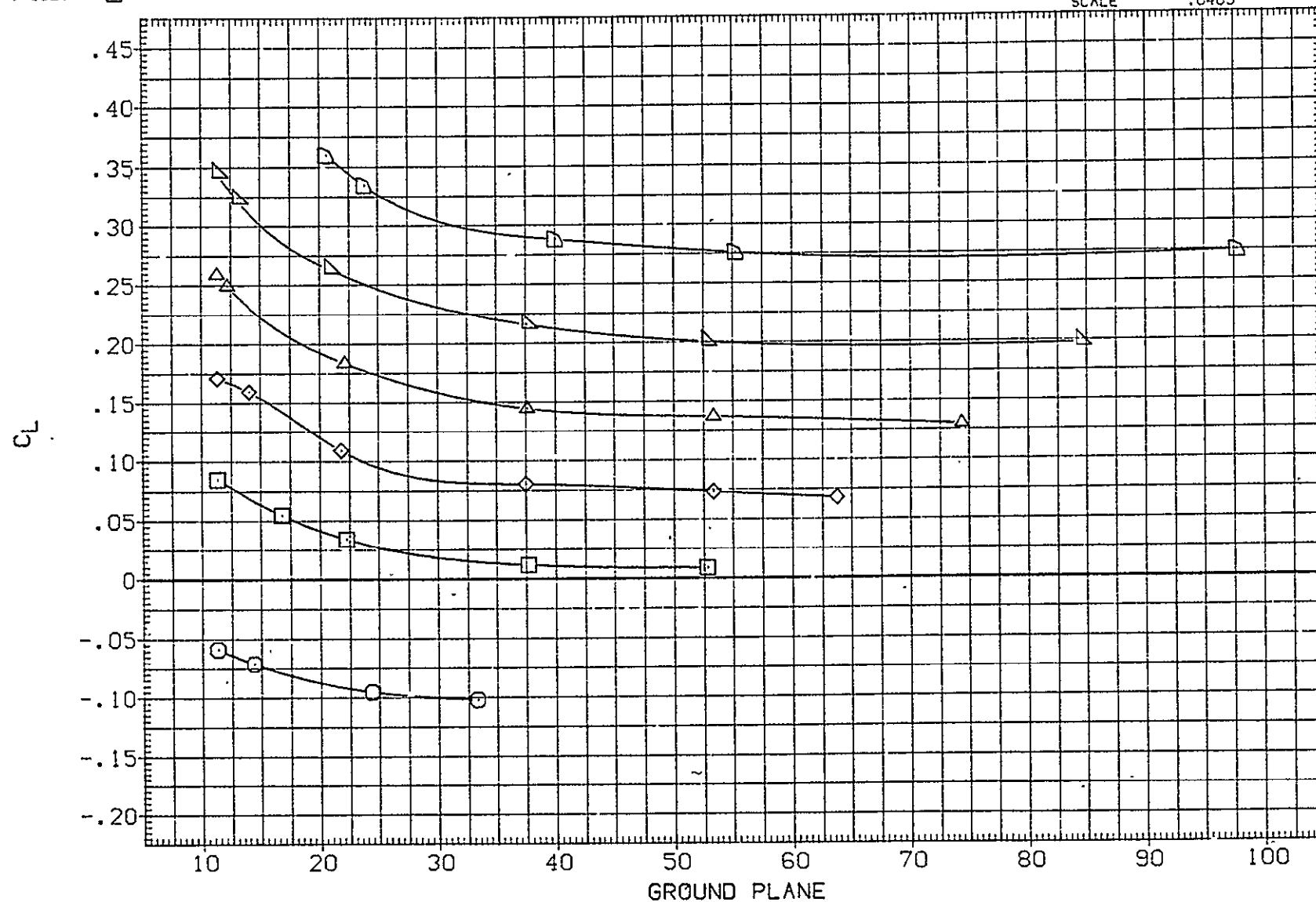


FIG 301 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF297) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | .263   | 8.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF298) | □      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 4.047  | 8.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF299) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 6.135  | 8.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF300) | △      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 8.209  | 8.000 | -11.700 | -5.000 | XMPP                  | 1109.0000 | IN.X0 |
| (TJF301) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 10.143 | 8.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF302) | ▷      | (CA-8) K3.1TS7H15.6.1F30TS40165.3.5 | 12.252 | 8.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

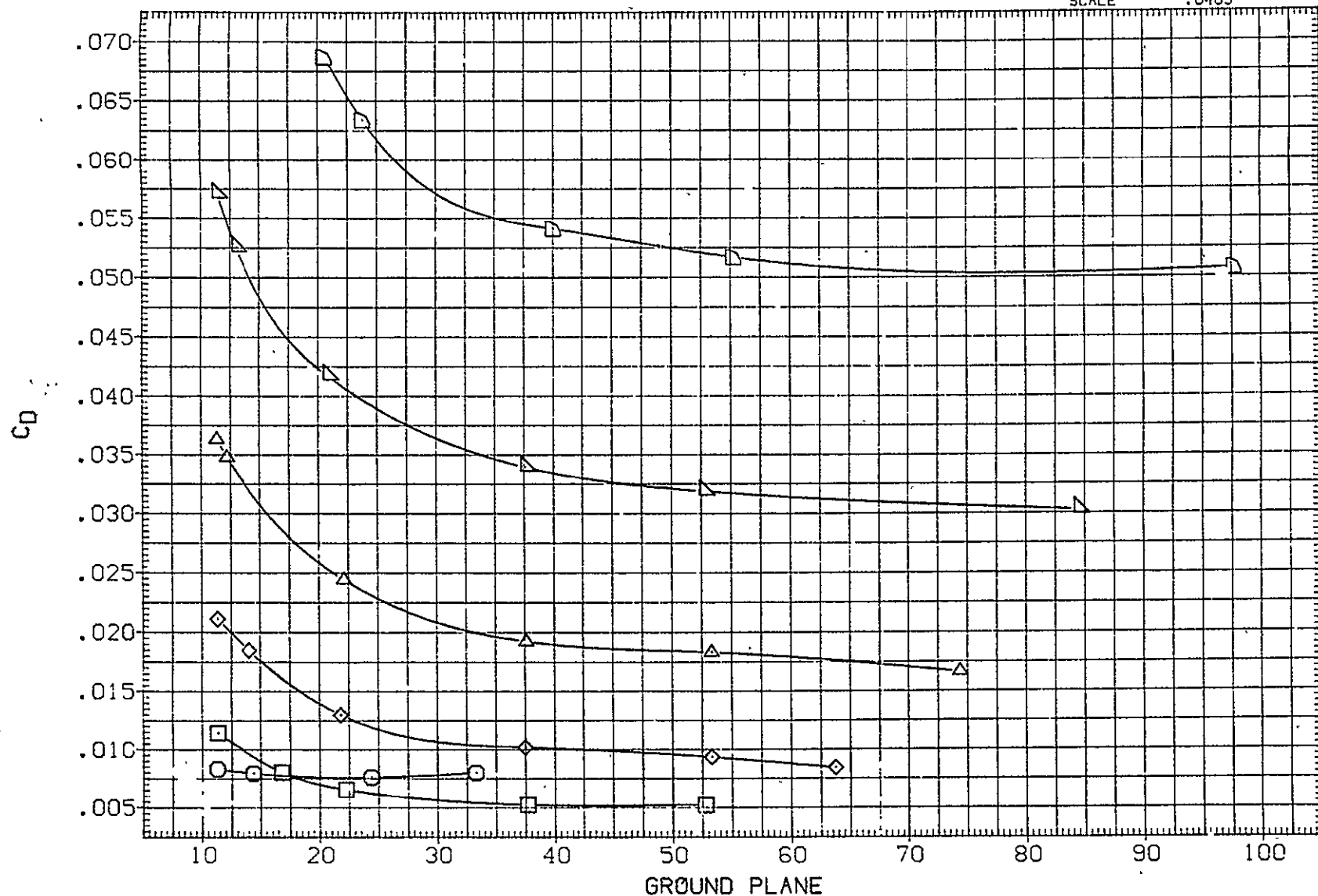


FIG 301 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MAC4 = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP  | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|---------|--------|-----------------------|-----------|-------|
| (TJF297) | □      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | .263   | 8.000 | -11.700 | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF298) | □      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 4.047  | 8.000 | -11.700 | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF299) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 6.135  | 8.000 | -11.700 | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF300) | △      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 8.209  | 8.000 | -11.700 | -5.000 | XMRP                  | 1109.0000 | IN.XO |
| (TJF301) | △      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 10.143 | 8.000 | -11.700 | -5.000 | YMRP                  | .0000     | IN.YO |
| (TJF302) | △      | (CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5 | 12.252 | 8.000 | -11.700 | -5.000 | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                                     |        |       |         |        | SCALE                 | .0405     |       |

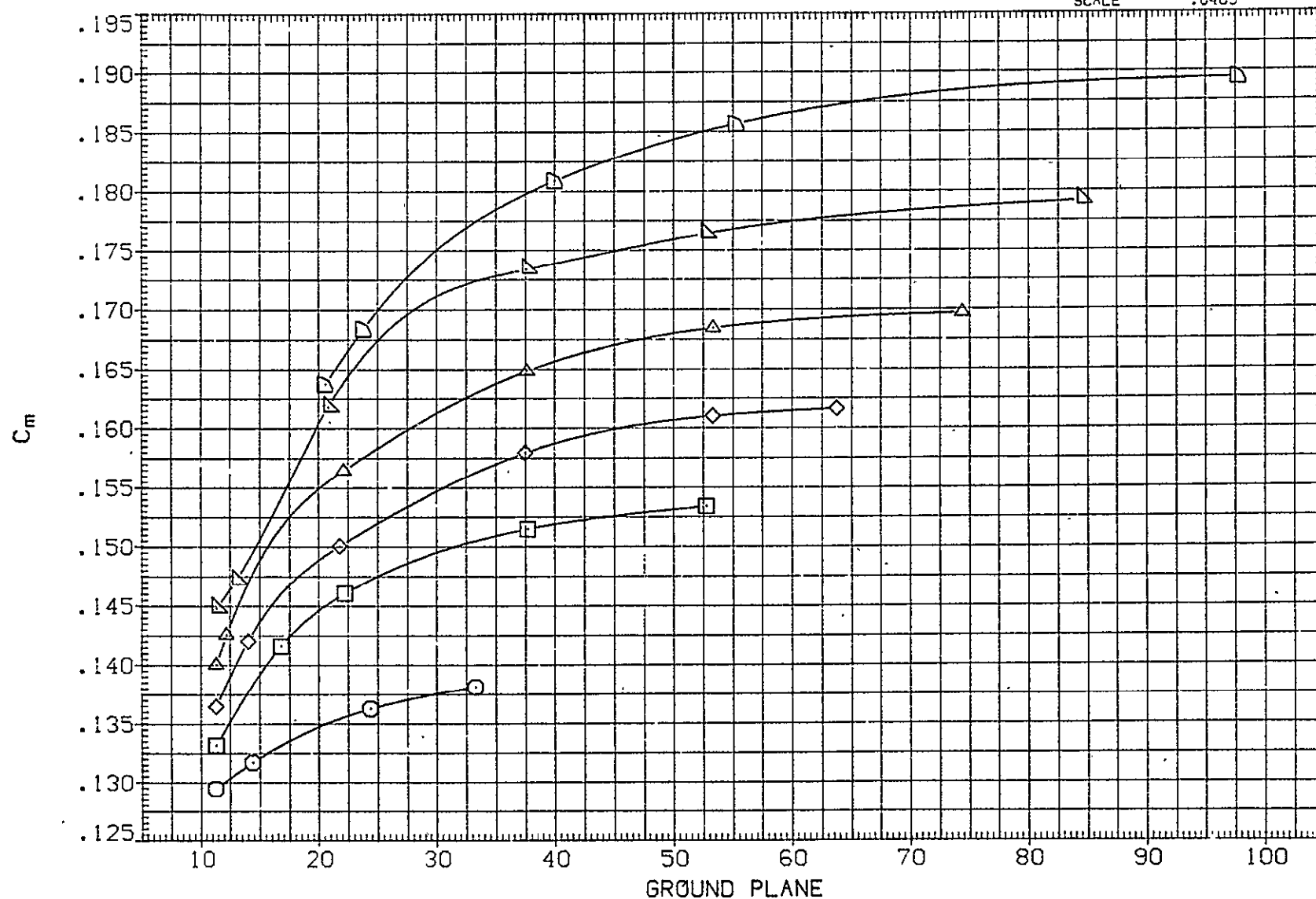


FIG 301 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=8, TC ON  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF309) | ○      | (CA-8) K3.1TS7 F10TS402G5.3.5 | .211   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF310) | □      | (CA-8) K3.1TS7 F10TS402G5.3.5 | 4.011  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF311) | ◇      | (CA-8) K3.1TS7 F10TS402G5.3.5 | 6.211  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF312) | △      | (CA-8) K3.1TS7 F10TS402G5.3.5 | 8.089  | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.XO |
| (TJF313) | ▽      | (CA-8) K3.1TS7 F10TS402G5.3.5 | 10.137 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN.YO |
| (TJF314) | ◻      | (CA-8) K3.1TS7 F10TS402G5.3.5 | 12.208 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                               |        |       |        |        | SCALE                 | .0405     |       |

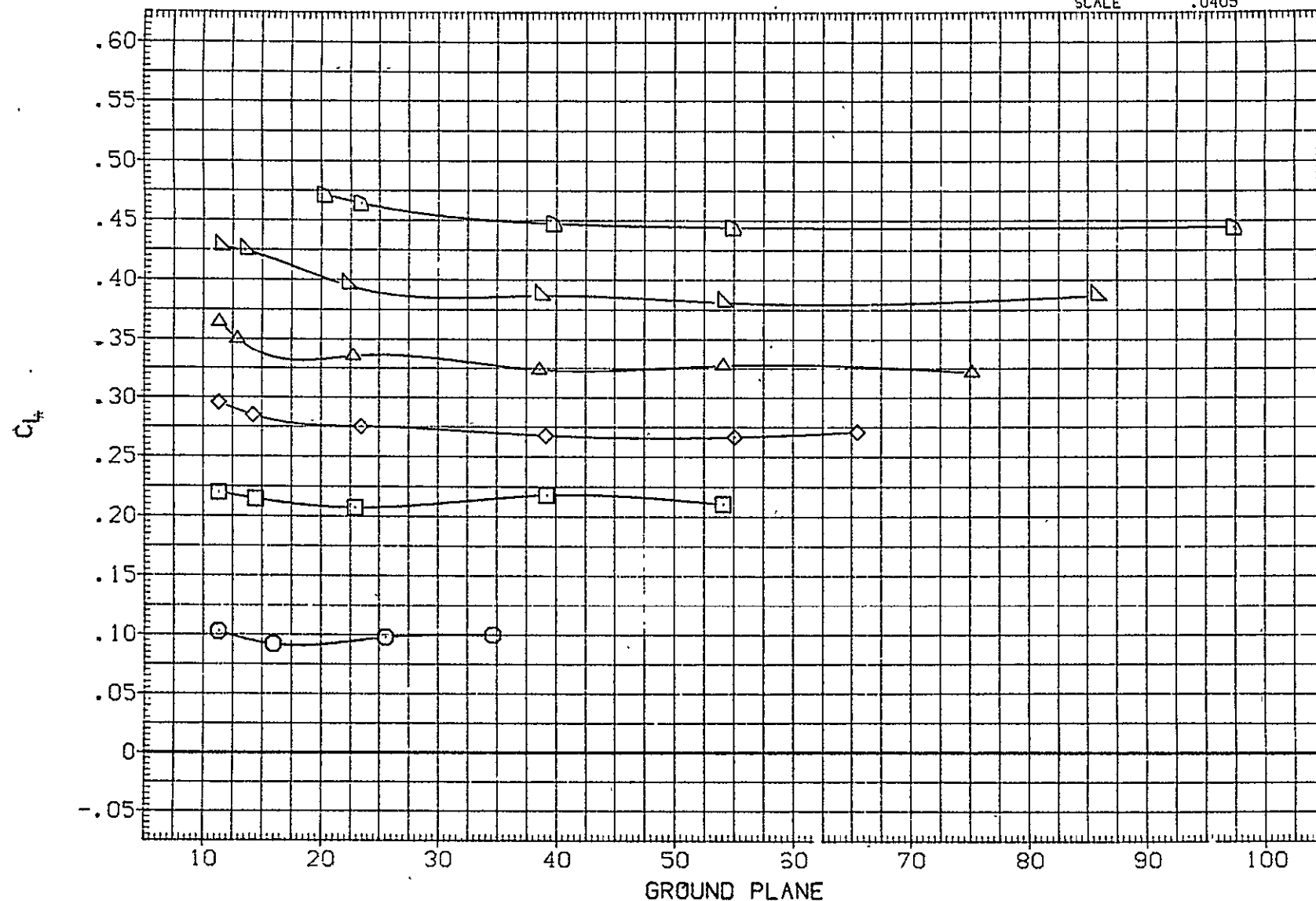


FIG 302 ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF, FLAPS 10, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF309) | □      | (CA-8) K3.ITS7 F10TS402G5.3.5 | .211   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF310) | □      | (CA-8) K3.ITS7 F10TS402G5.3.5 | 4.011  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF311) | ◇      | (CA-8) K3.ITS7 F10TS402G5.3.5 | 6.211  | 8.000 | .000   | -5.000 | BPEF                  | 936.6800  | IN.   |
| (TJF312) | △      | (CA-8) K3.ITS7 F10TS402G5.3.5 | 8.089  | 8.000 | .000   | -5.000 | XMRF                  | 1109.0000 | IN.X0 |
| (TJF313) | △      | (CA-8) K3.ITS7 F10TS402G5.3.5 | 10.137 | 8.000 | .000   | -5.000 | YMRF                  | .0050     | IN.Y0 |
| (TJF314) | △      | (CA-8) K3.ITS7 F10TS402G5.3.5 | 12.208 | 8.000 | .000   | -5.000 | ZMRF                  | 375.0000  | IN.Z0 |
|          |        |                               |        |       |        |        | SCALE                 | .0405     |       |

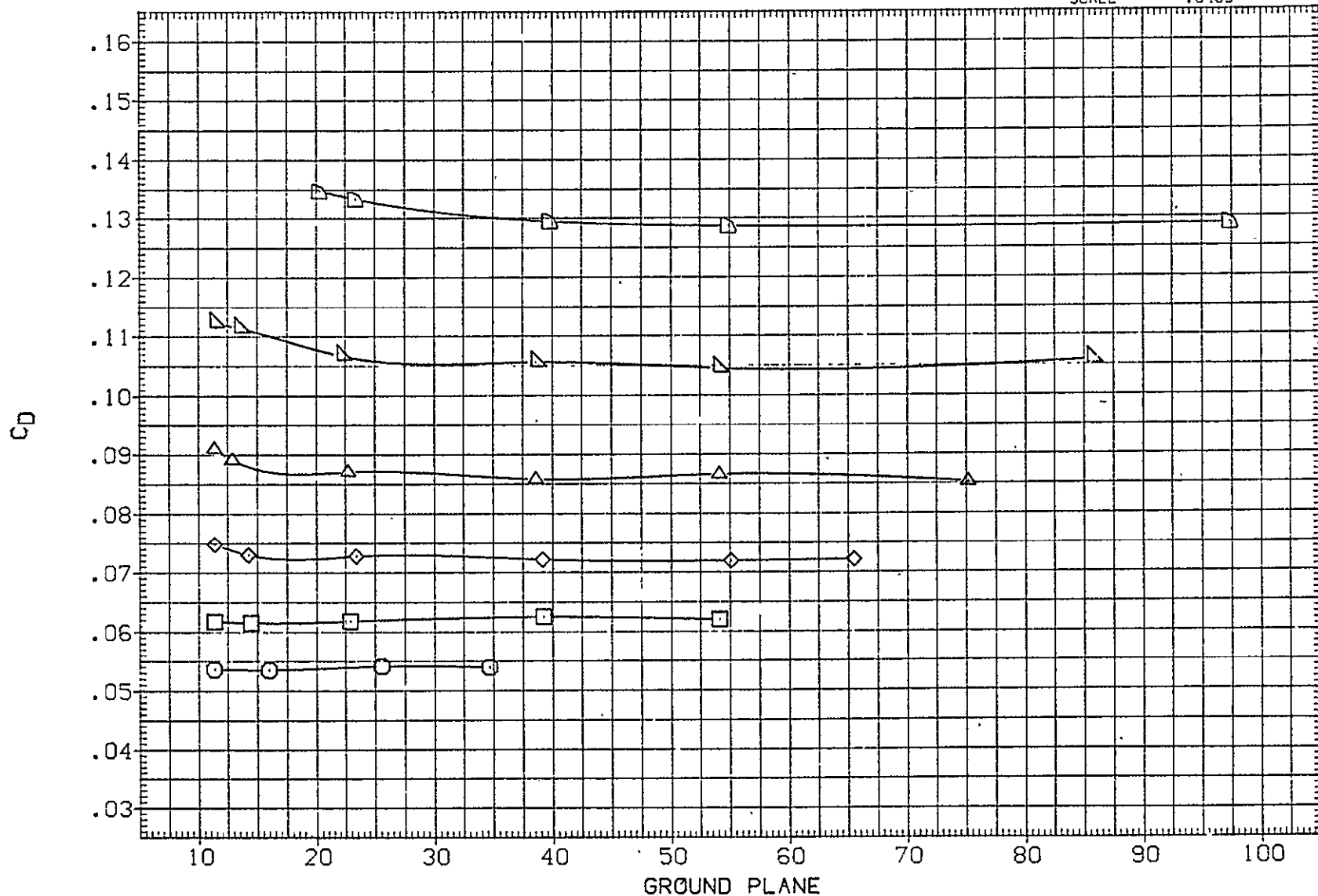


FIG 302 ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF, FLAPS 10, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF309) | ○      | (CA-8) K3.1TS7 F10TS402G5.3.5 | .211   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF310) | □      | (CA-8) K3.1TS7 F10TS402G5.3.5 | 4.011  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF311) | ◇      | (CA-8) K3.1TS7 F10TS402G5.3.5 | 6.211  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF312) | △      | (CA-8) K3.1TS7 F10TS402G5.3.5 | 8.089  | 8.000 | .000   | -5.000 | XMRF                  | 1109.0000 | IN.XO |
| (TJF313) | ▽      | (CA-8) K3.1TS7 F10TS402G5.3.5 | 10.137 | 8.000 | .000   | -5.000 | YMRF                  | .0000     | IN.YO |
| (TJF314) | ▽      | (CA-8) K3.1TS7 F10TS402G5.3.5 | 12.208 | 8.000 | .000   | -5.000 | ZMRF                  | 375.0000  | IN.ZO |
|          |        |                               |        |       |        |        | SCALE                 | .0405     |       |

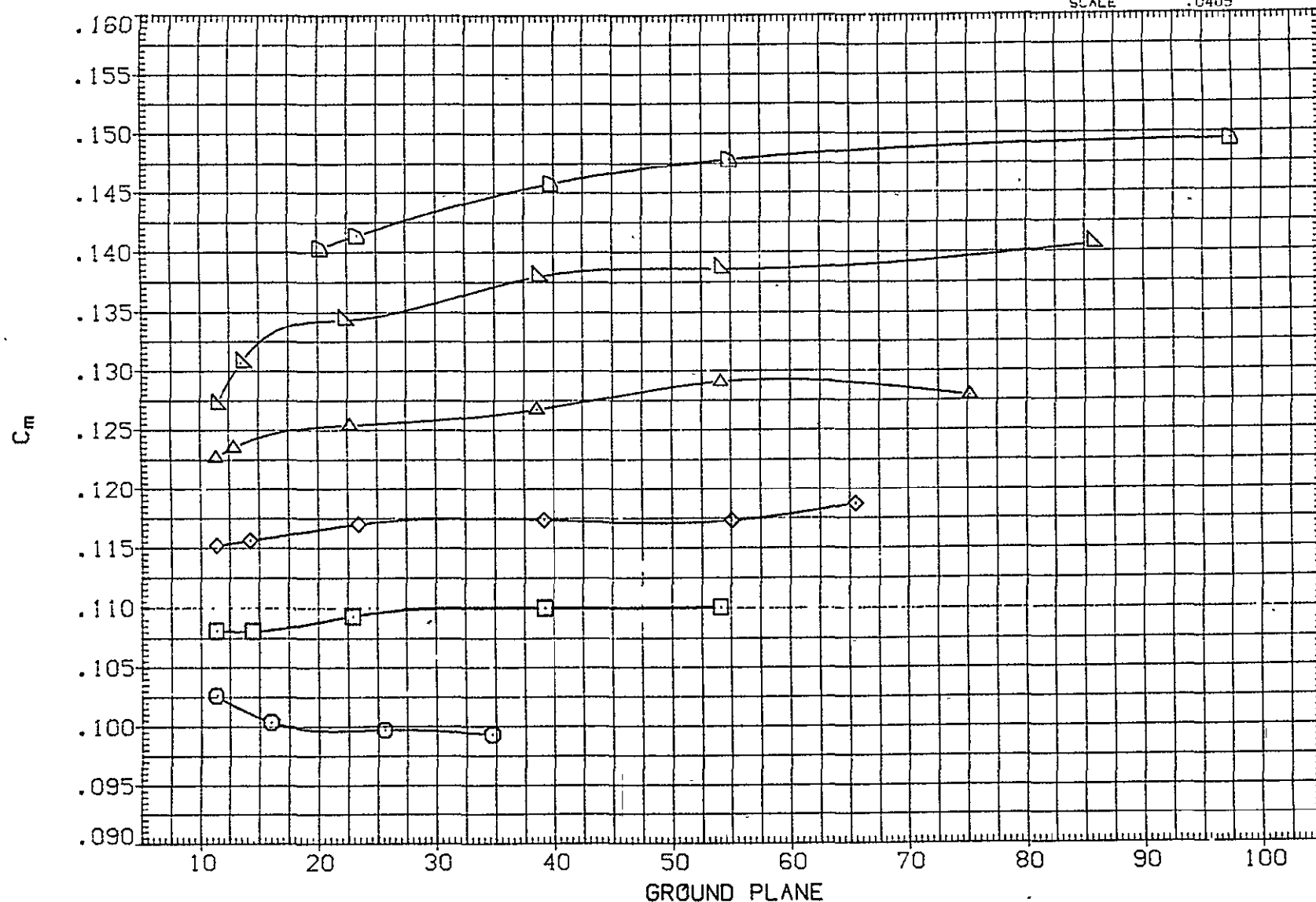


FIG 302 ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF, FLAPS 10, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF327) | ○      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | .195   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF328) | □      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 3.963  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF329) | ◇      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 6.133  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF330) | △      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 8.150  | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF331) | ▽      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 10.074 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF332) | ◻      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 12.218 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

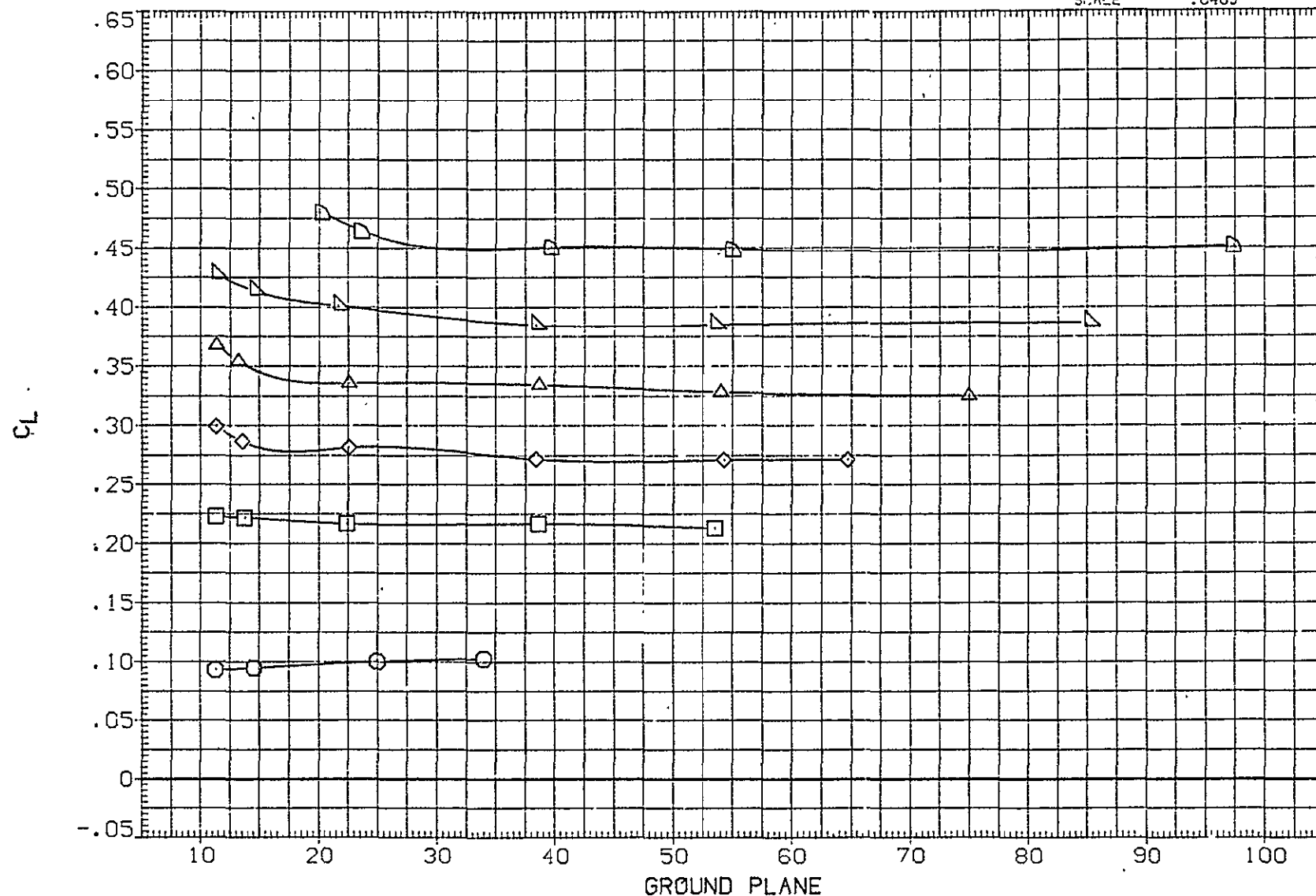


FIG 303 ALT CONFIG IN GROUND PROXIMITY, STAB = 4, FLAPS 10, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF327) | □      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | .195   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF328) | □      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 3.963  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF329) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 6.133  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF330) | △      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 8.150  | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF331) | △      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 10.074 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF332) | △      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 12.218 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

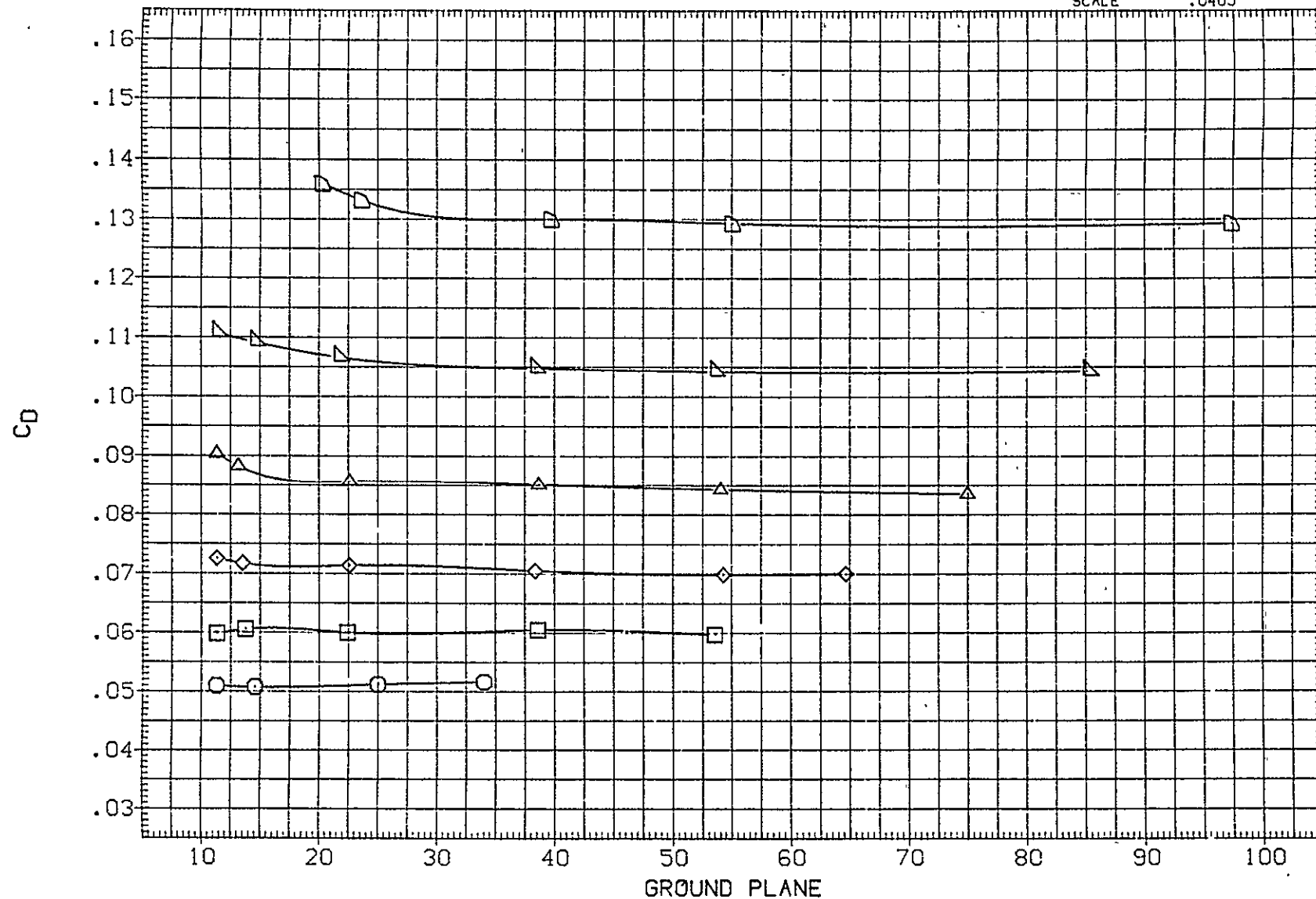


FIG 303 ALT CONFIG IN GROUND PROXIMITY, STAB = 4, FLAPS 10, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

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| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF327) | ○      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | .195   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | SG,FT |
| (TJF328) | □      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 3.963  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF329) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 6.133  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF330) | △      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 8.150  | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF331) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 10.074 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF332) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 12.218 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

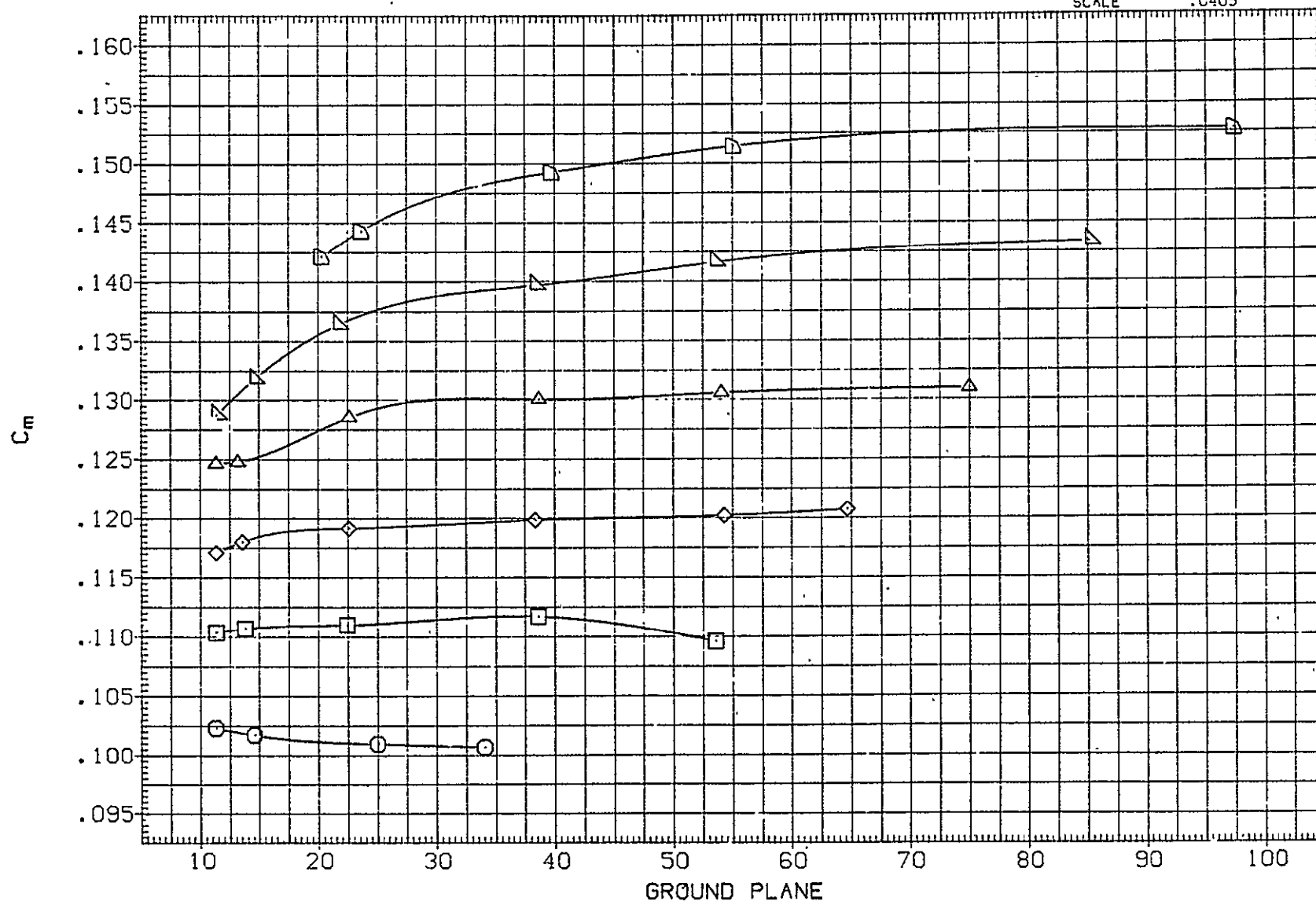


FIG 303 ALT CONFIG IN GROUND PROXIMITY, STAB = 4, FLAPS 10, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF321) | ○      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | .178   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF322) | □      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 4.024  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF323) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 6.135  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF324) | △      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 8.152  | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF325) | △      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 10.053 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF326) | △      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 12.123 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

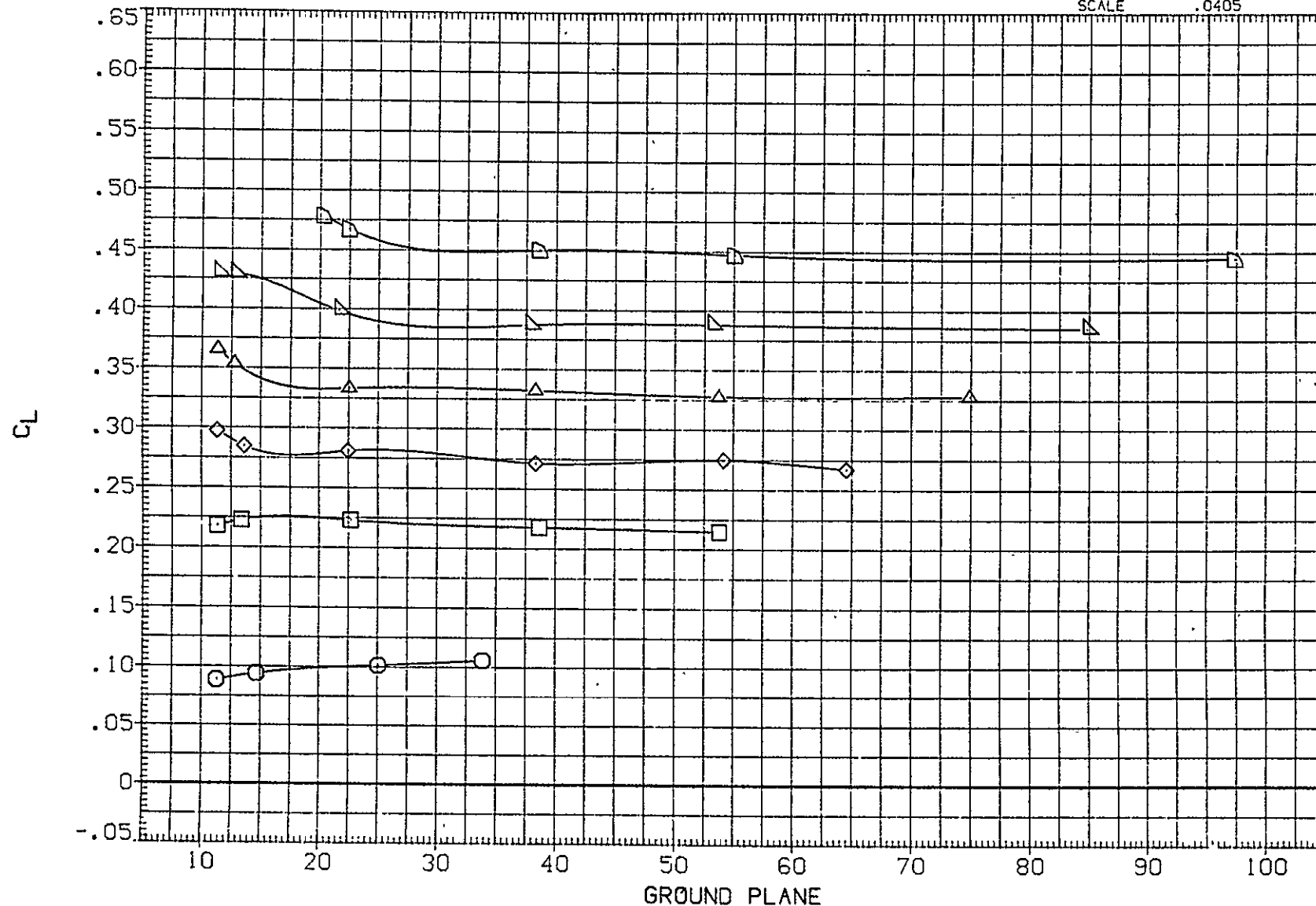


FIG 304 ALT CONFIG IN-GROUND PROXIMITY, STAB = 2, FLAPS 10, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|
| (1JF321) | □      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | .178   | 8.000 | .000   | -5.000 | SREF 2690.0000 50.FT  |
| (1JF322) | □      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 4.024  | 8.000 | .000   | -5.000 | LREF 474.8100 IN.     |
| (1JF323) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 6.135  | 8.000 | .000   | -5.000 | BREF 936.6800 IN.     |
| (1JF324) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 8.152  | 8.000 | .000   | -5.000 | YMRP 1109.0000 IN.XD  |
| (1JF325) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 10.053 | 8.000 | .000   | -5.000 | ZMRP .0000 IN.YD      |
| (1JF326) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 12.123 | 8.000 | .000   | -5.000 | SCALE 375.0000 IN.ZD  |

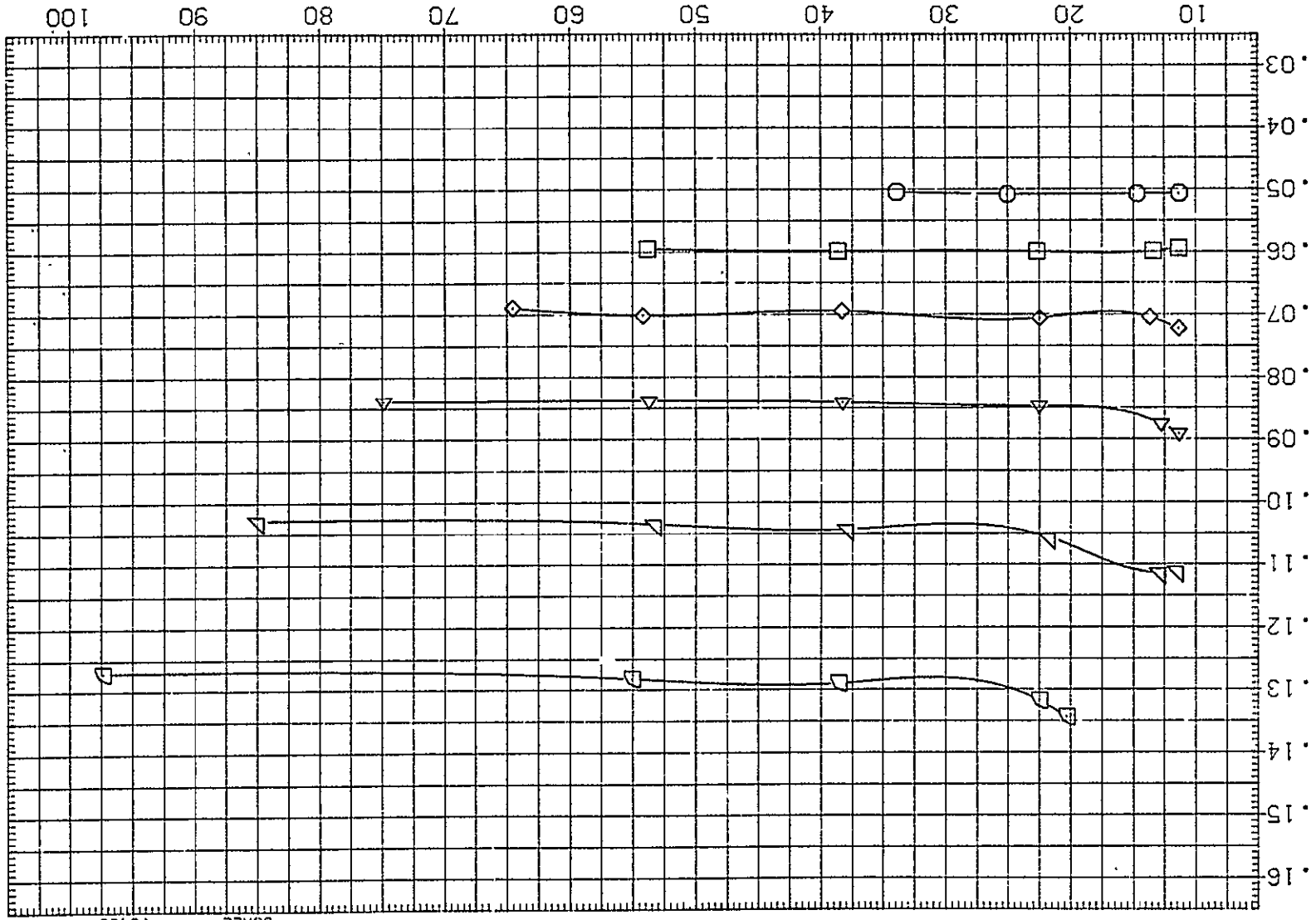


FIG 304 ALT CONFIG IN GROUND PROXIMITY, STAB = 2, FLAPS 10, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|--------|
| (TJF321) | ○      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | .178   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF322) | □      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 4.024  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF323) | △      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 6.135  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF324) | △      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 8.152  | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0  |
| (TJF325) | △      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 10.053 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0  |
| (TJF326) | △      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 12.123 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0  |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |        |

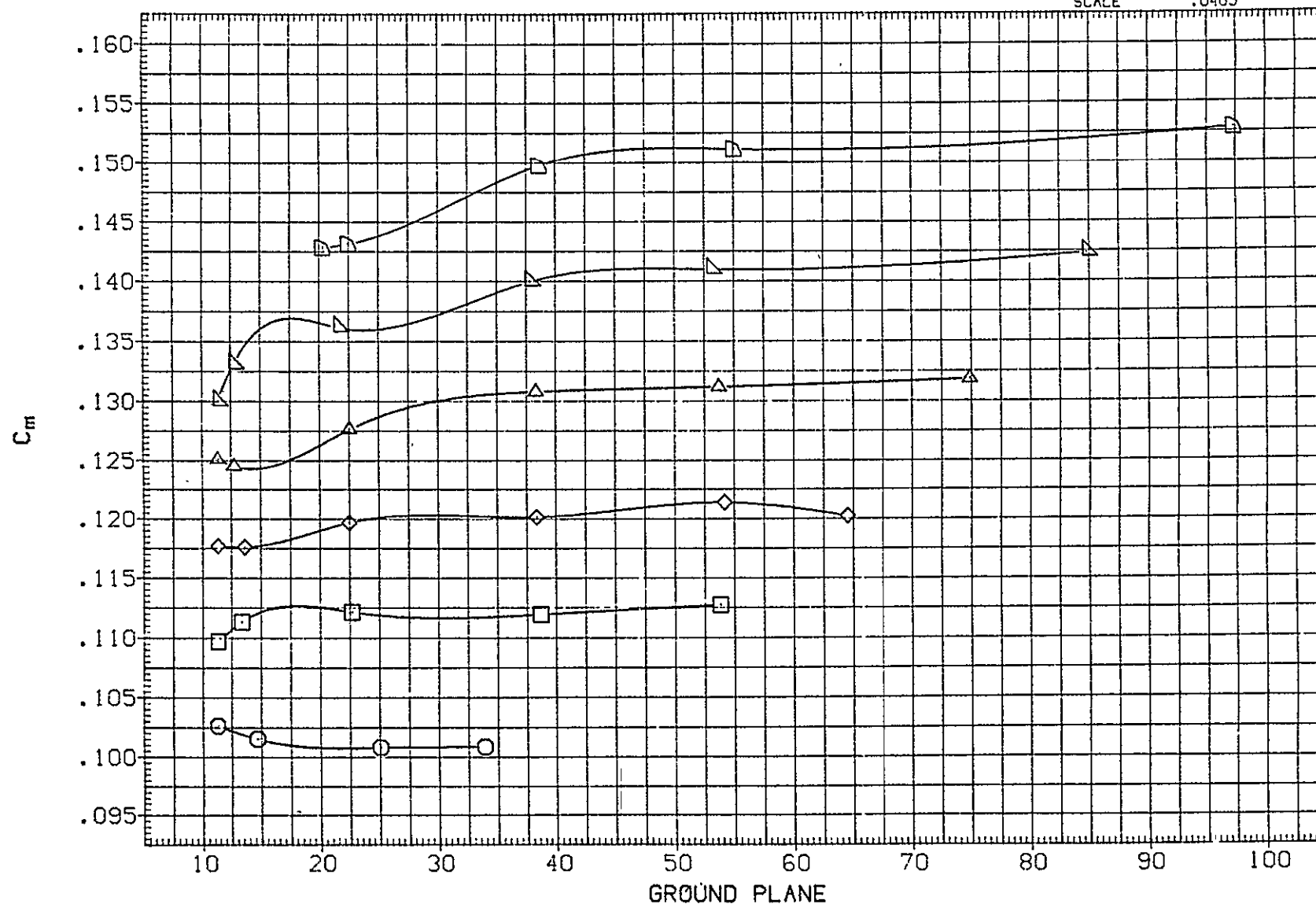


FIG 304 ALT CONFIG IN GROUND PROXIMITY, STAB = 2, FLAPS 10, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

# REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------------------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF315) | ○      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | .206               | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF316) | □      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 4.136              | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF317) | ◇      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 6.112              | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF318) | △      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 8.230              | 8.000 | .000   | -5.000 | XMPP                  | 1109.0000 | IN.X0 |
| (TJF319) | ▽      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 10.085             | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF320) | ◻      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 12.133             | 8.000 | .000   | -5.000 | ZMPP                  | 375.0000  | IN.Z0 |
|          |        |                                     |                    |       |        |        | SCALE                 | .0405     |       |

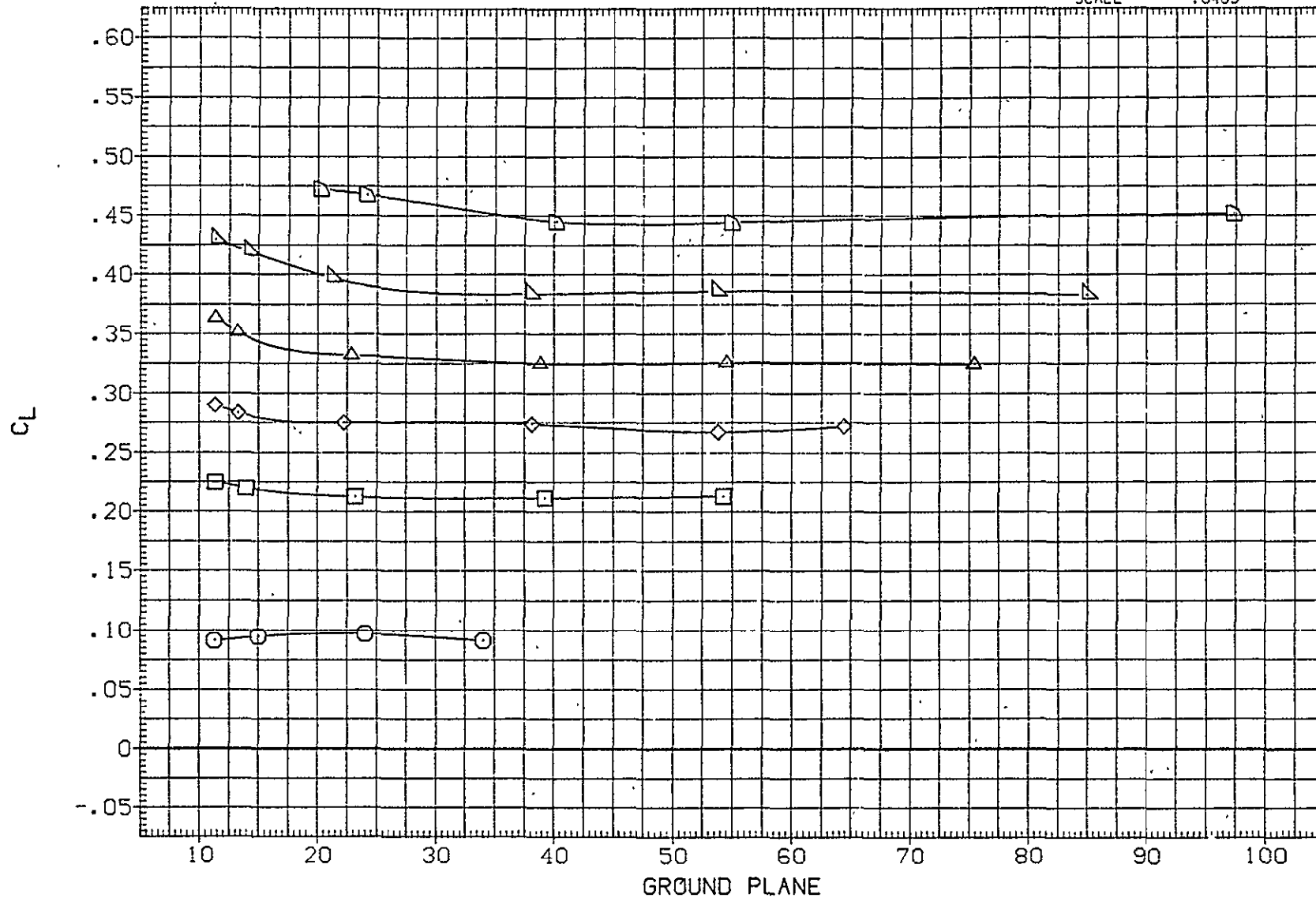


FIG 305 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, FLAPS 10, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF315) | ○      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | .206   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF316) | ◇      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 4.136  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF317) | △      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 6.112  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF318) | ▽      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 8.230  | 8.000 | .000   | -5.000 | XMPP                  | 1109.0000 | IN.X0 |
| (TJF319) | □      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 10.085 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF320) | ◇      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 12.133 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

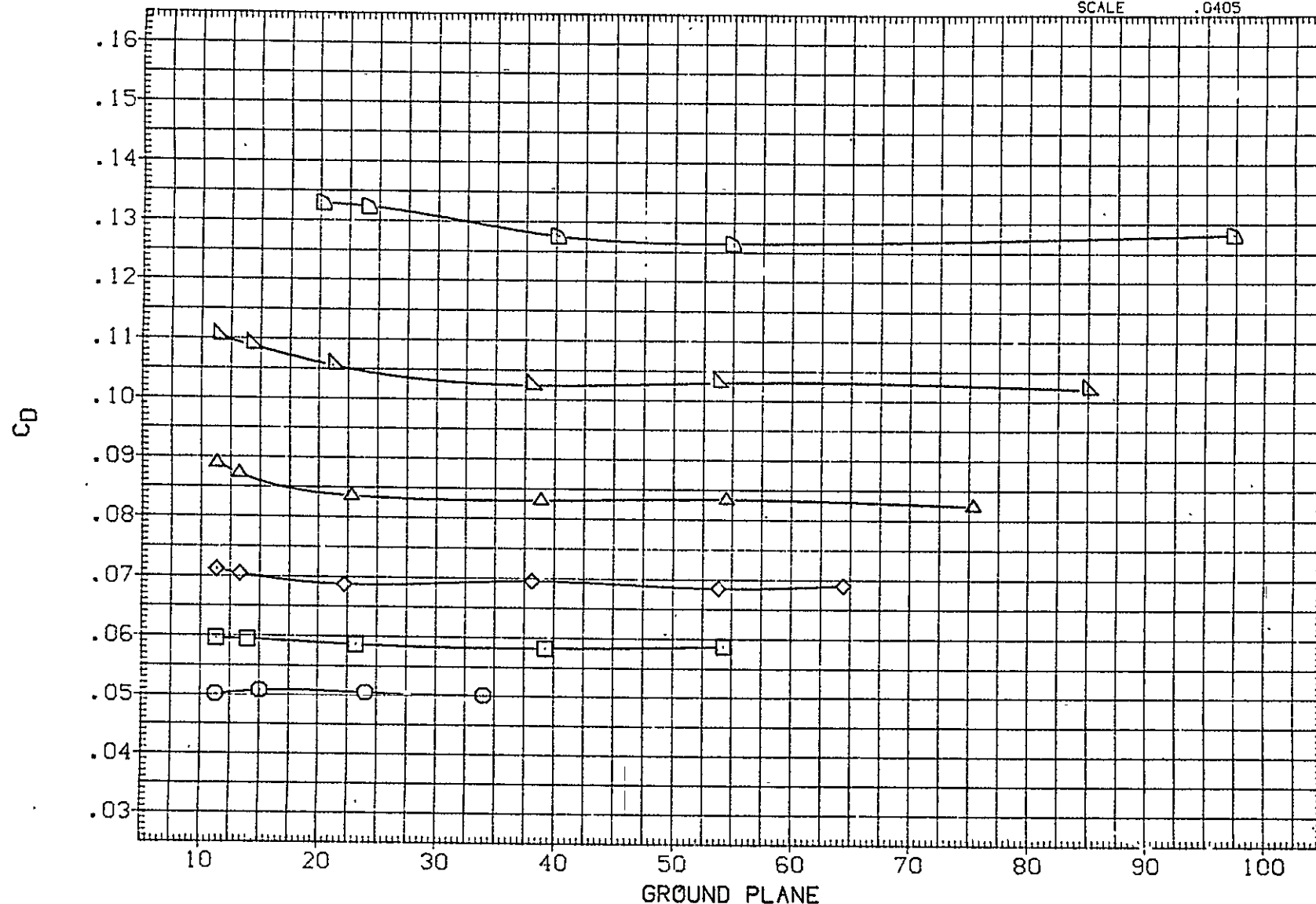


FIG 305 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, FLAPS 10, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------------------|-------|--------|--------|-----------------------|-----------|--------|
| (TJF315) | ○      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | .206               | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF316) | □      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 4.136              | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF317) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 6.112              | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF318) | △      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 8.230              | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF319) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 10.085             | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF320) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 12.133             | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |                    |       |        |        | SCALE                 | .0405     |        |

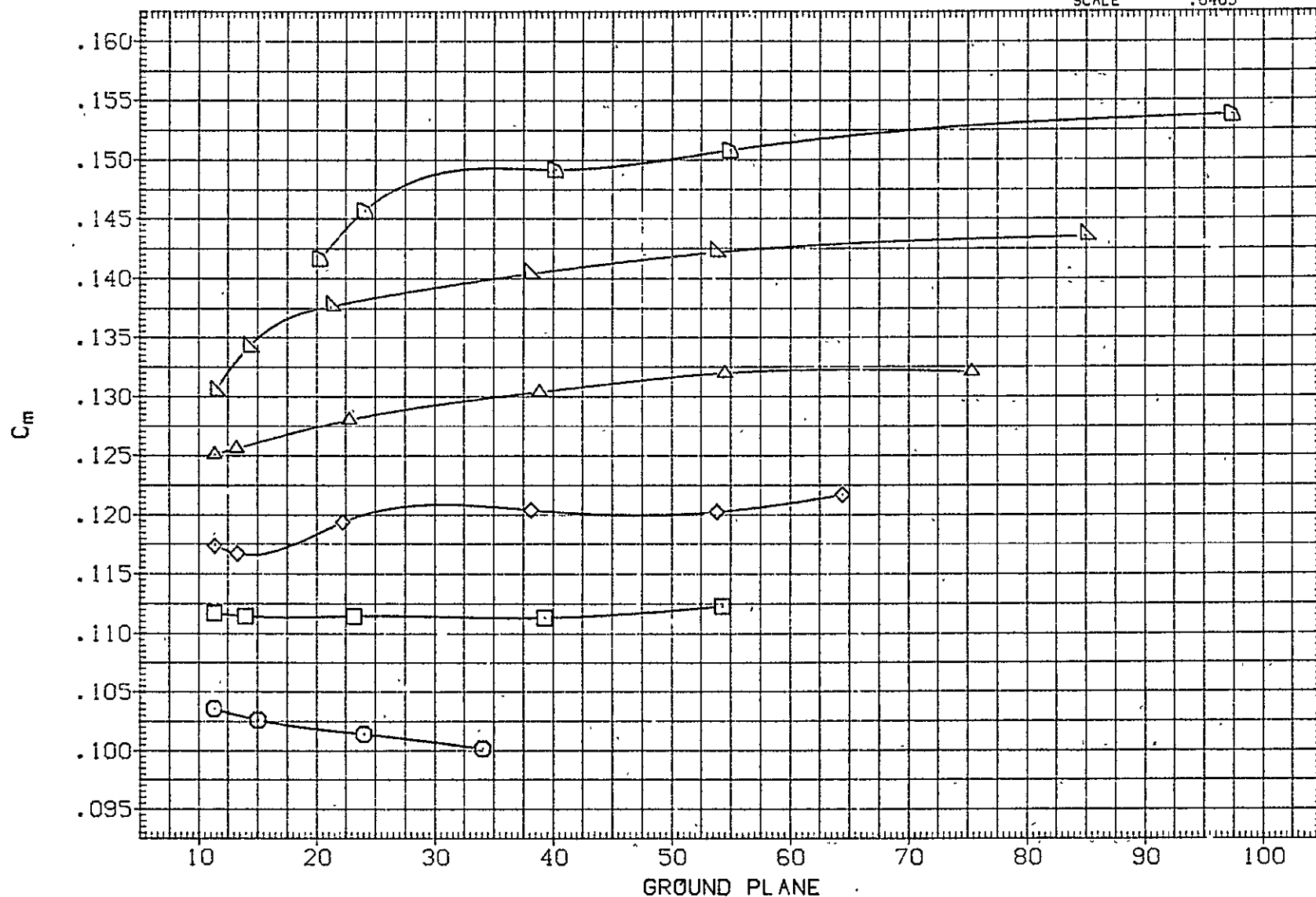


FIG 305 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, FLAPS 10, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF303) | ○      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | .255   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF304) | □      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 4.075  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF305) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 6.060  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF306) | △      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 8.107  | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF307) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 10.128 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF308) | ◻      | (CA-8) K3.1TS7H15.6.1F10TS402G5.3.5 | 12.145 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

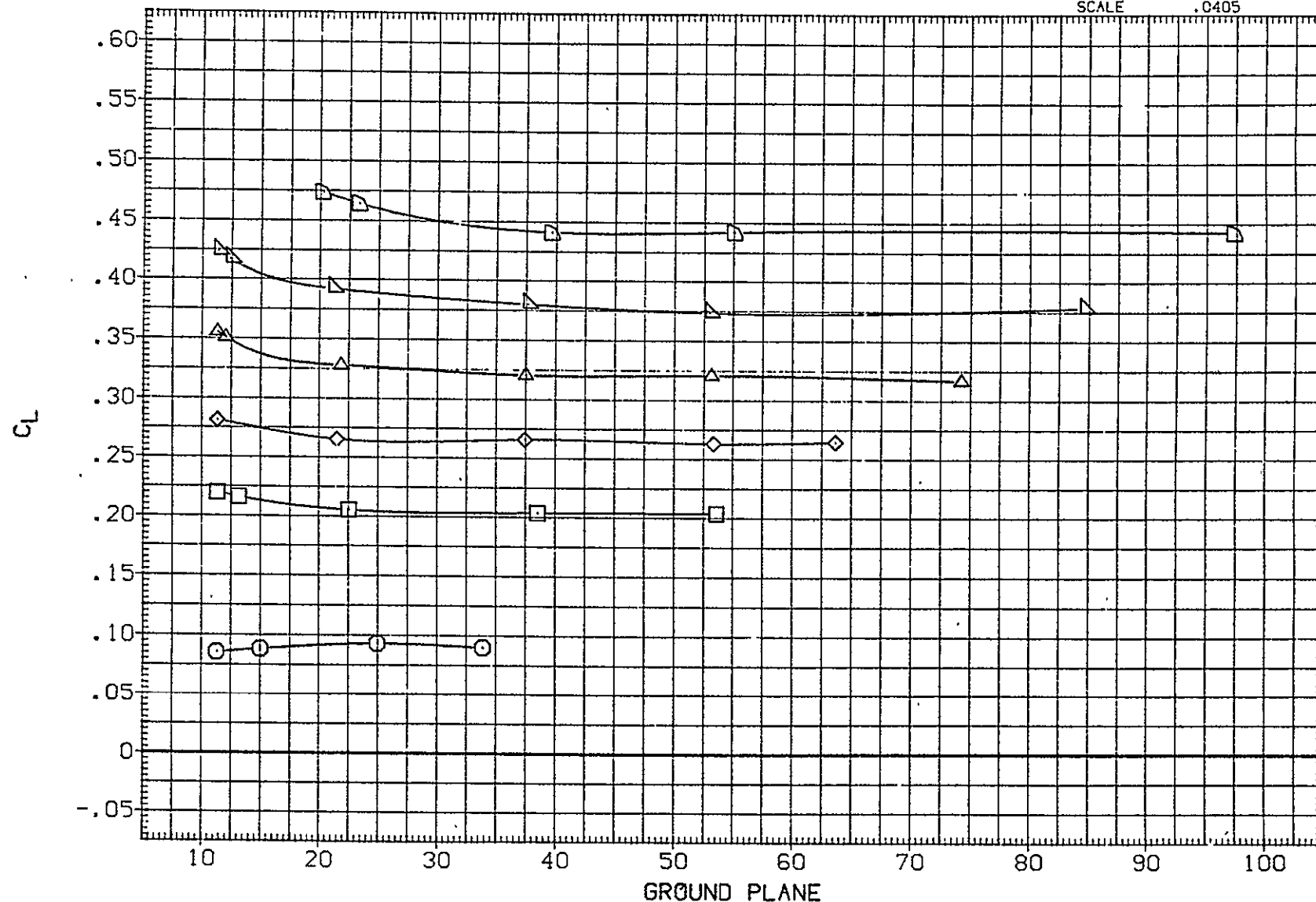


FIG 306 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|--------|
| (TJF303) | ○      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | .255   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT  |
| (TJF304) | □      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 4.075  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF305) | ◇      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 6.060  | 8.000 | .000   | -5.000 | BREF                  | 936.6900  | IN.    |
| (TJF306) | △      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 8.107  | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF307) | ▽      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 10.128 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF308) | ◻      | (CA-8) K3.1TS7H15.6.1FIOTS402G5.3.5 | 12.145 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |        |

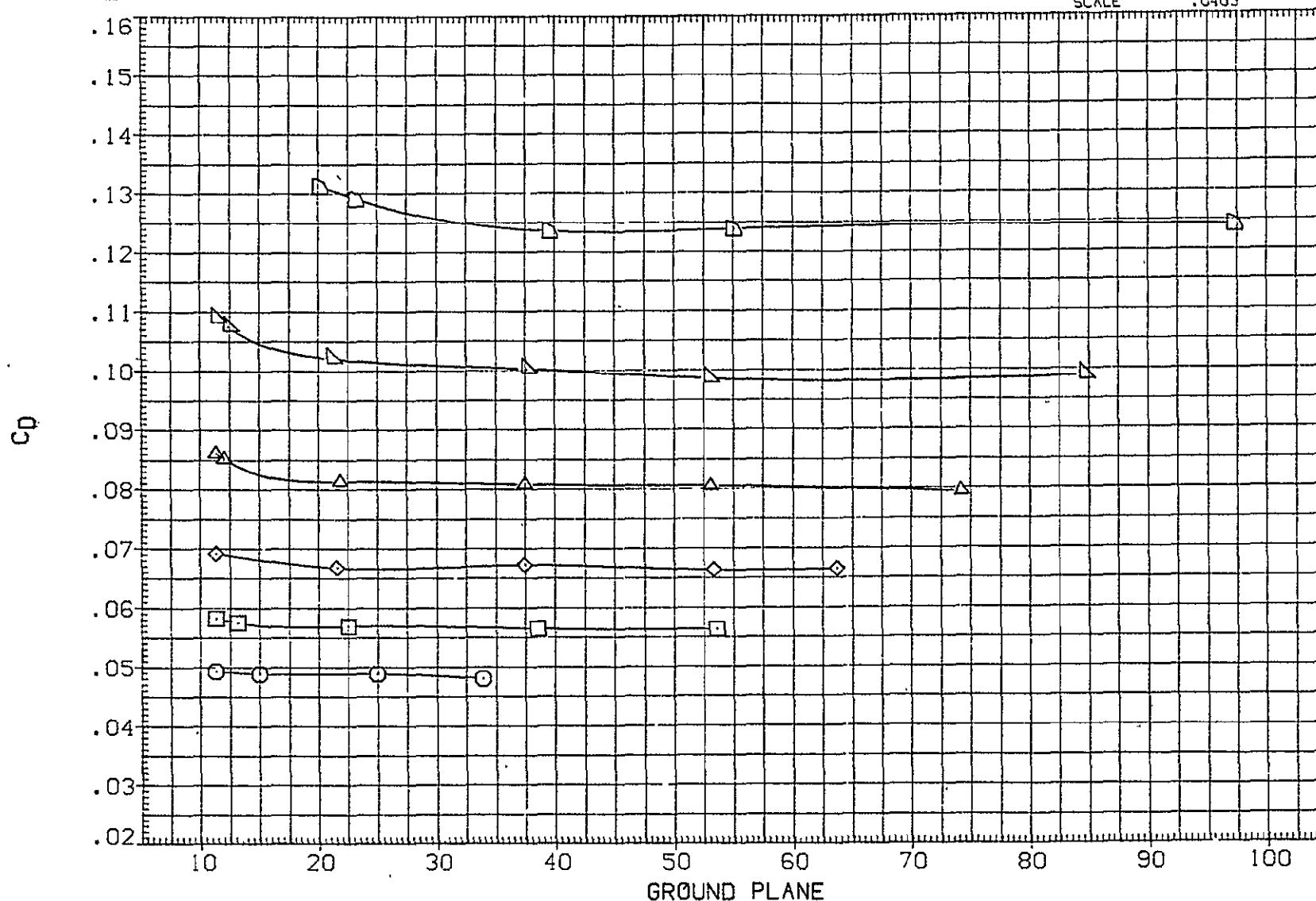


FIG 306 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|--------|
| (TJF303) | ○      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | .255   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF304) | □      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 4.075  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF305) | ◇      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 6.060  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF306) | △      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 8.107  | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF307) | ▽      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 10.128 | 8.000 | .000   | -5.000 | YMRP                  | .C300     | IN. Y0 |
| (TJF308) | ▷      | (CA-8) K3.1TS7H15.6.1F10TS40265.3.5 | 12.145 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |        |

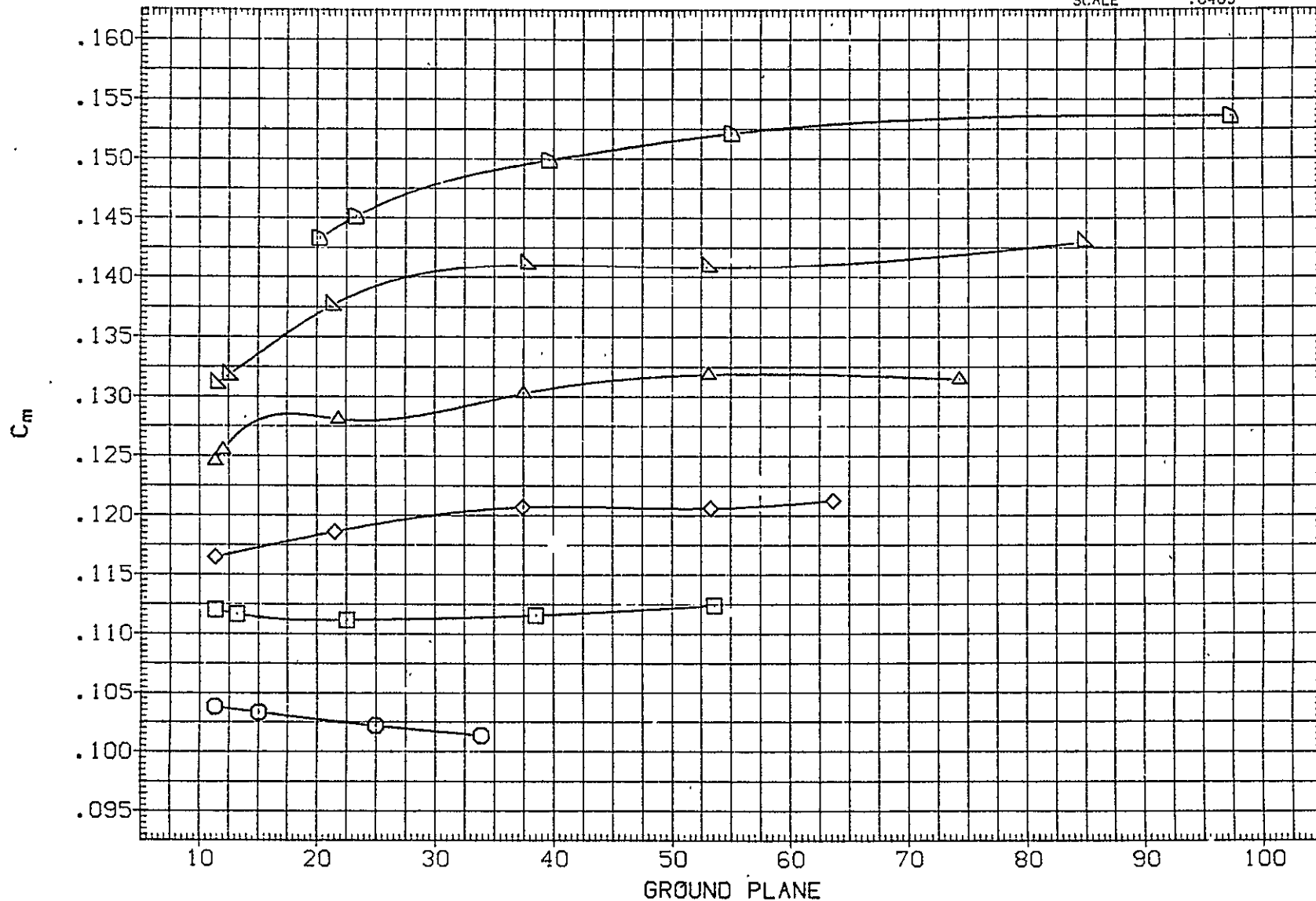


FIG 306 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA <sub>W</sub> | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|--------------------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF247) | ○      | (CA-8) K3.1TS7 F30TS402G5.3.5 | .185               | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF248) | □      | (CA-8) K3.1TS7 F30TS402G5.3.5 | 4.176              | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF249) | ◇      | (CA-8) K3.1TS7 F30TS402G5.3.5 | 6.162              | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF250) | △      | (CA-8) K3.1TS7 F30TS402G5.3.5 | 8.199              | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF251) | ▽      | (CA-8) K3.1TS7 F30TS402G5.3.5 | 10.114             | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF252) | ◻      | (CA-8) K3.1TS7 F30TS402G5.3.5 | 12.218             | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                               |                    |       |        |        | SCALE                 | .0405     |       |

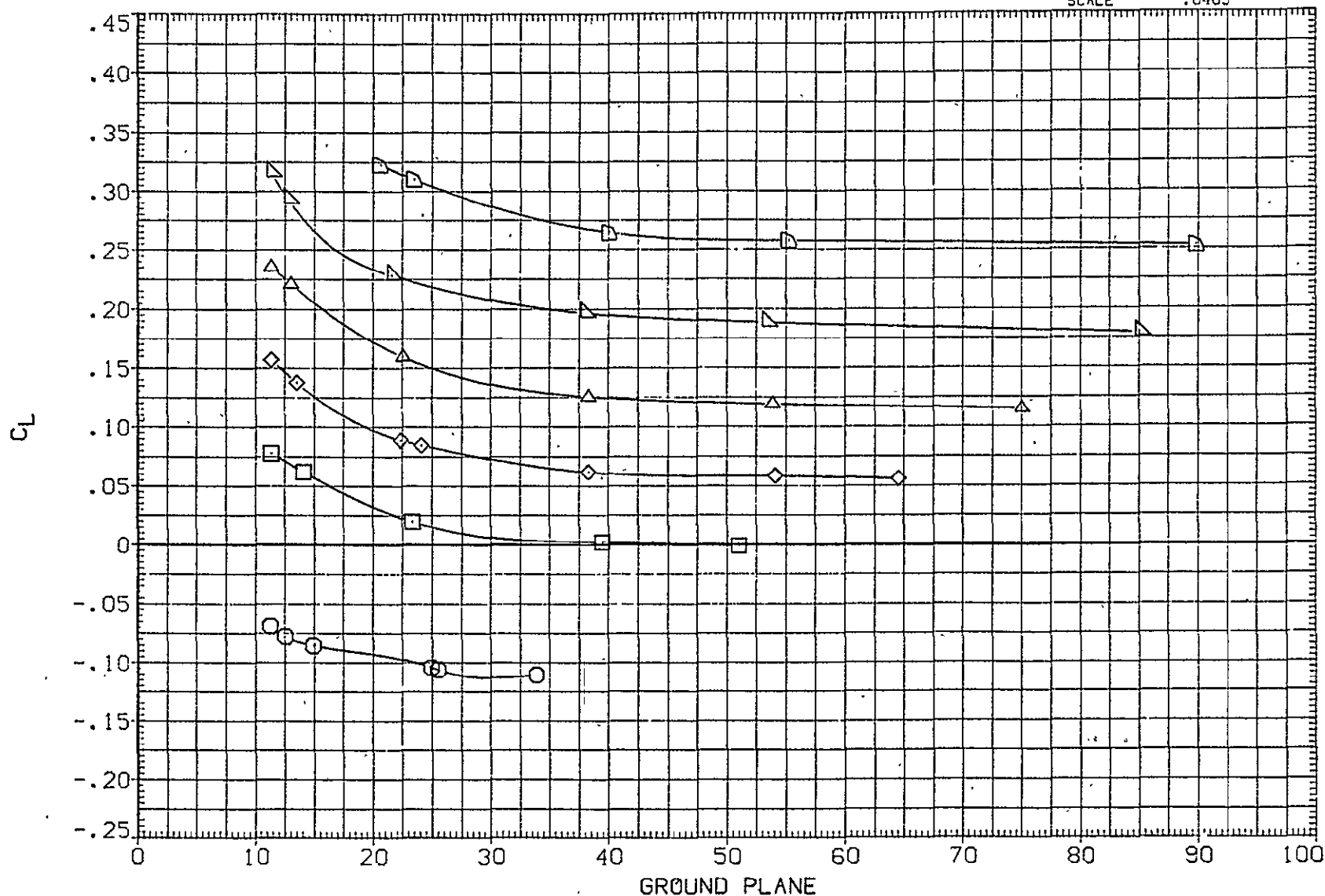


FIG 307 ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF, FLAPS 30, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION  | DESCRIPTION    | ALPHA: | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|----------------|----------------|--------|-------|--------|--------|-----------------------|-----------|--------|
| (TJF247) | □      | (CA-8) K3.1TS7 | F30TS402G5.3.5 | .185   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF248) | □      | (CA-8) K3.1TS7 | F30TS402G5.3.5 | 4.176  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF249) | ◇      | (CA-8) K3.1TS7 | F30TS402G5.3.5 | 6.162  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF250) | △      | (CA-8) K3.1TS7 | F30TS402G5.3.5 | 8.199  | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF251) | △      | (CA-8) K3.1TS7 | F30TS402G5.3.5 | 10.114 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF252) | △      | (CA-8) K3.1TS7 | F30TS402G5.3.5 | 12.218 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                |                |        |       |        |        | SCALE                 | .0405     |        |

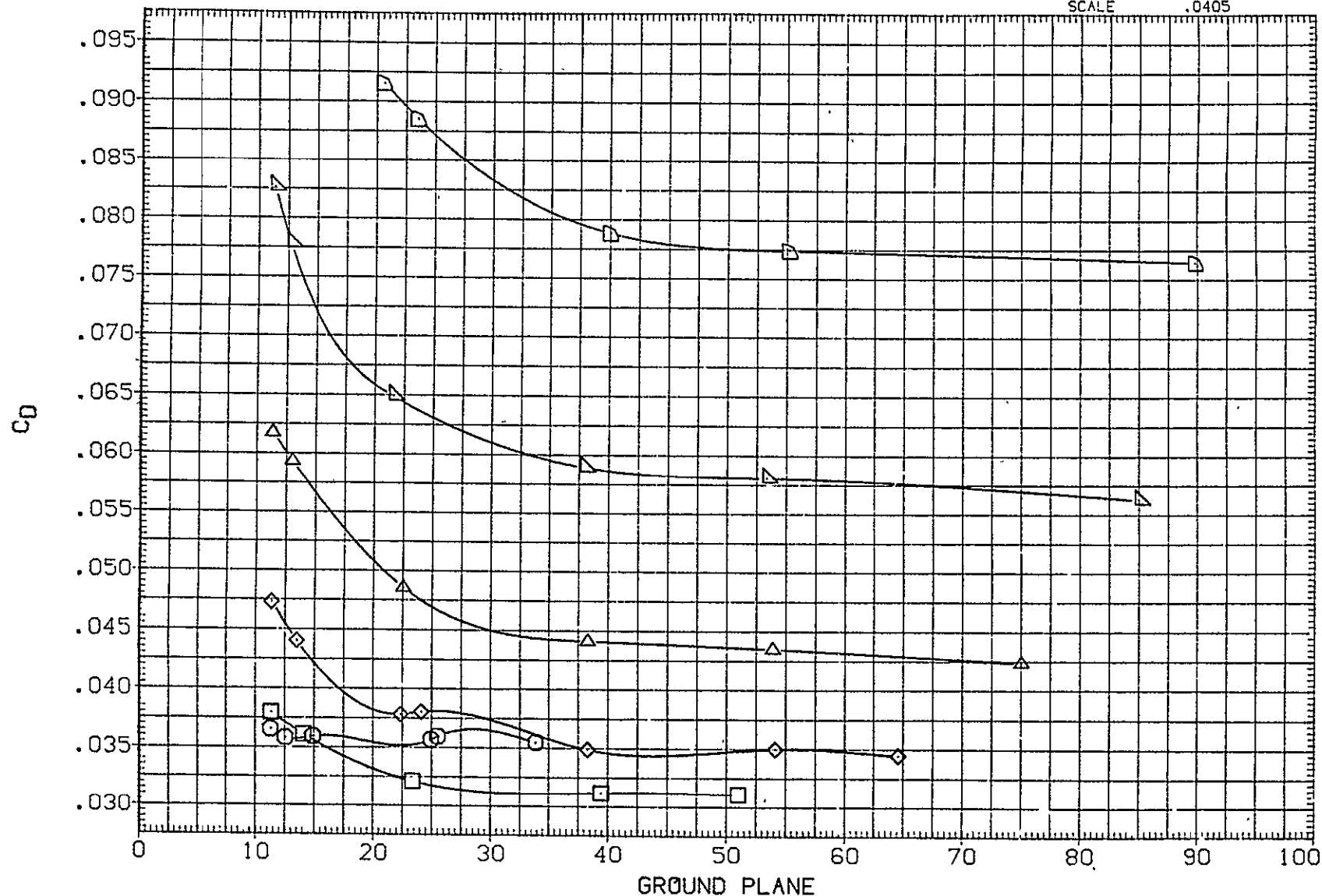


FIG 307 ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF, FLAPS 30, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION     | ALPHA W | I ORB | BD FLAP | ELEV ON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------|---------|-------|---------|---------|-----------------------|-----------|-------|
| (TJF247) | ○      | (CA-8) K3.1TS7 F30TS402G5.3.5 | .185    | 8.000 | .000    | -5.000  | SREF                  | 2690.0000 | SQ.FT |
| (TJF248) | □      | (CA-8) K3.1TS7 F30TS402G5.3.5 | 4.176   | 8.000 | .000    | -5.000  | LREF                  | 474.8100  | IN.   |
| (TJF249) | ◇      | (CA-8) K3.1TS7 F30TS402G5.3.5 | 6.162   | 8.000 | .000    | -5.000  | BREF                  | 936.6800  | IN.   |
| (TJF250) | △      | (CA-8) K3.1TS7 F30TS402G5.3.5 | 8.199   | 8.000 | .000    | -5.000  | XMRP                  | 1109.0000 | IN.XO |
| (TJF251) | ▽      | (CA-8) K3.1TS7 F30TS402G5.3.5 | 10.114  | 8.000 | .000    | -5.000  | YMRP                  | .0000     | IN.YO |
| (TJF252) | ▷      | (CA-8) K3.1TS7 F30TS402G5.3.5 | 12.218  | 8.000 | .000    | -5.000  | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                               |         |       |         |         | SCALE                 | .0405     |       |

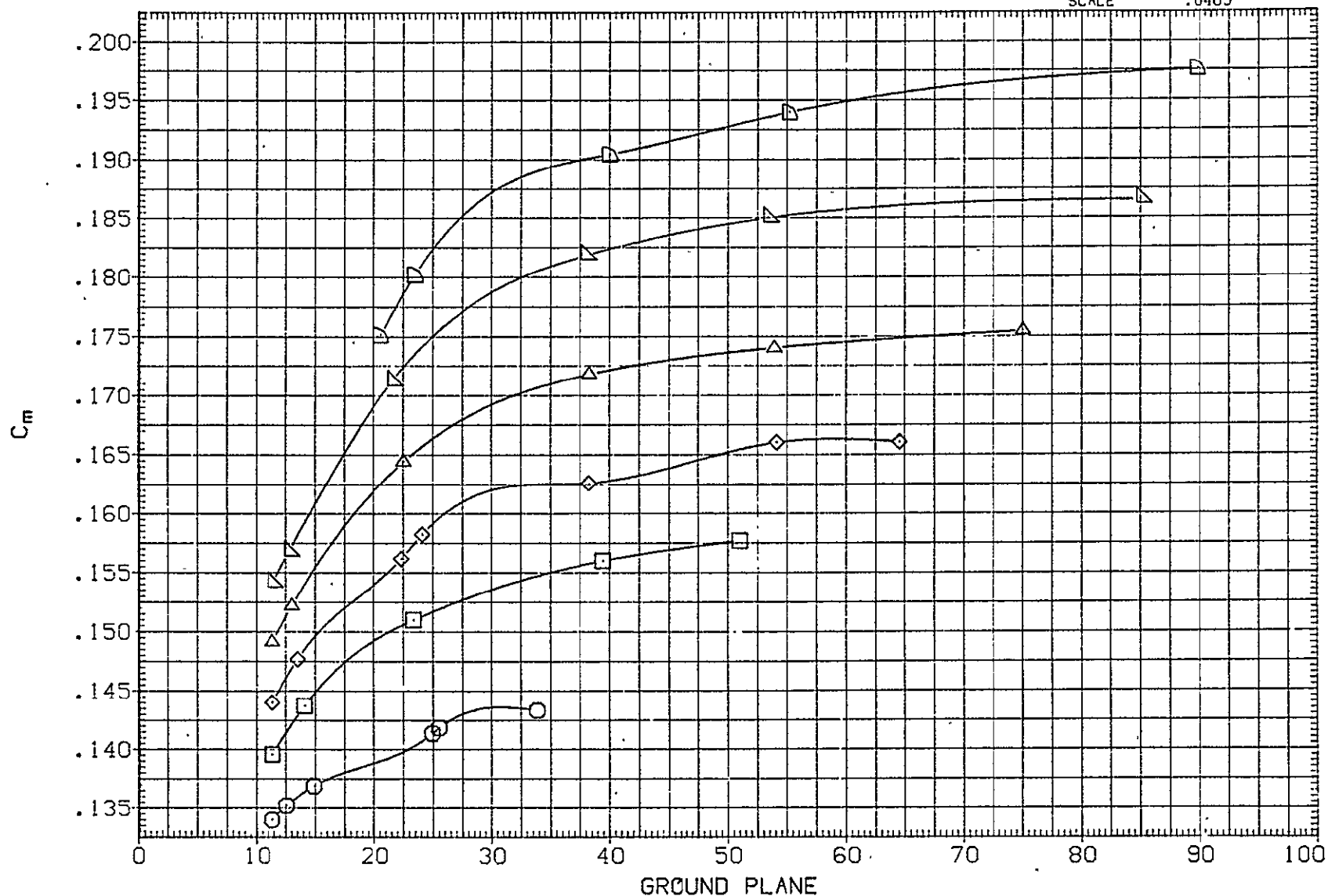


FIG 307 ALT CONFIG IN GROUND PROXIMITY, HORIZ OFF, FLAPS 30, I ORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|--------|
| (TJF253) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | .182   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT  |
| (TJF254) | □      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 4.155  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF255) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 6.113  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF256) | △      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 8.174  | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN. X0 |
| (TJF257) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 10.184 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF258) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 12.229 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |        |

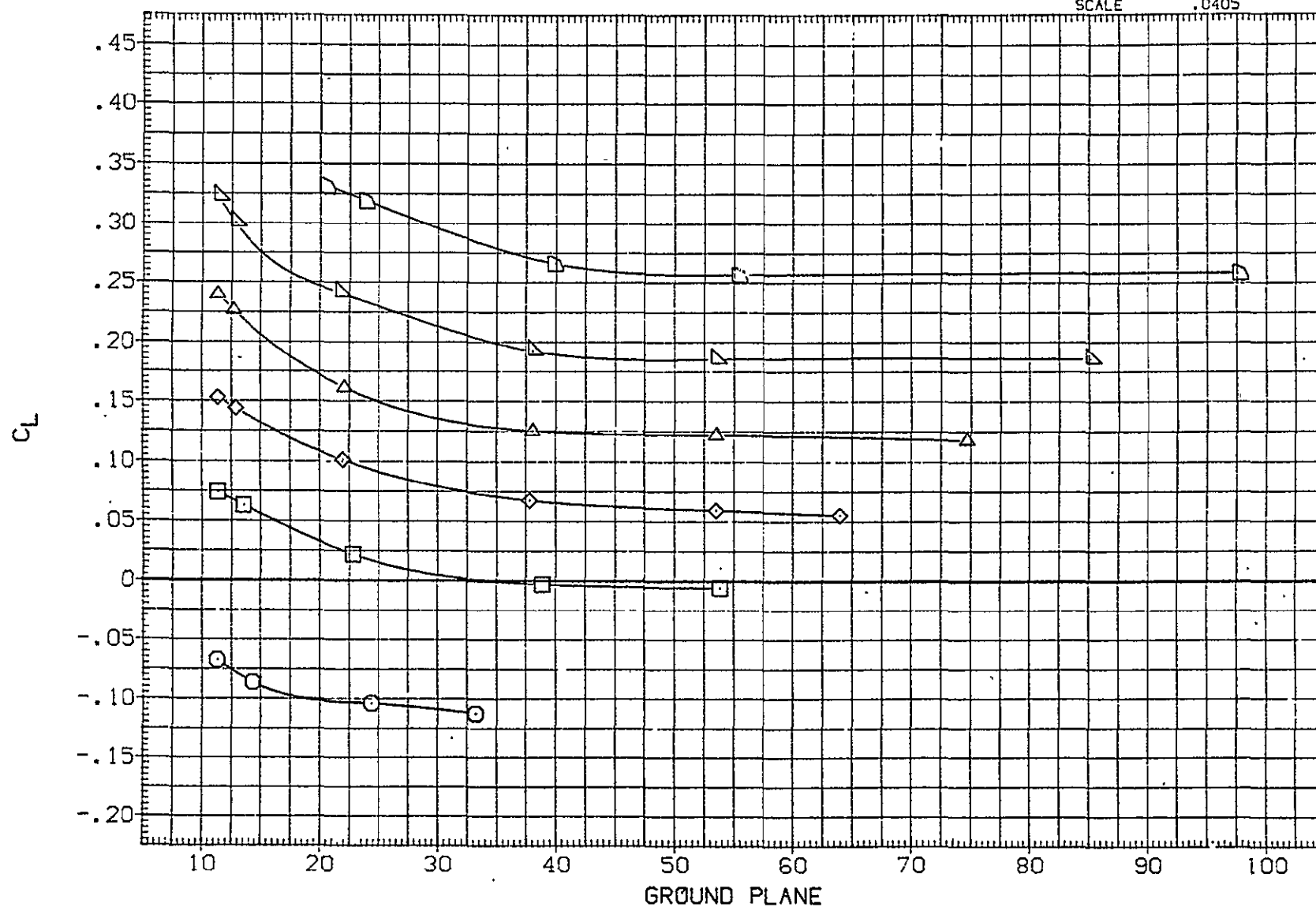


FIG 308 ALT CONFIG IN GROUND PROXIMITY, STAB = 2, FLAPS 30, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sup>W</sup> | ICRB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------------------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF253) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | .182               | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF254) | □      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 4.155              | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF255) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 6.113              | 8.000 | .000   | -5.000 | BPEF                  | 936.6800  | IN.   |
| (TJF256) | △      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 8.174              | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF257) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 10.184             | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF258) | ◊      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 12.229             | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |                    |       |        |        | SCALE                 | .0405     |       |

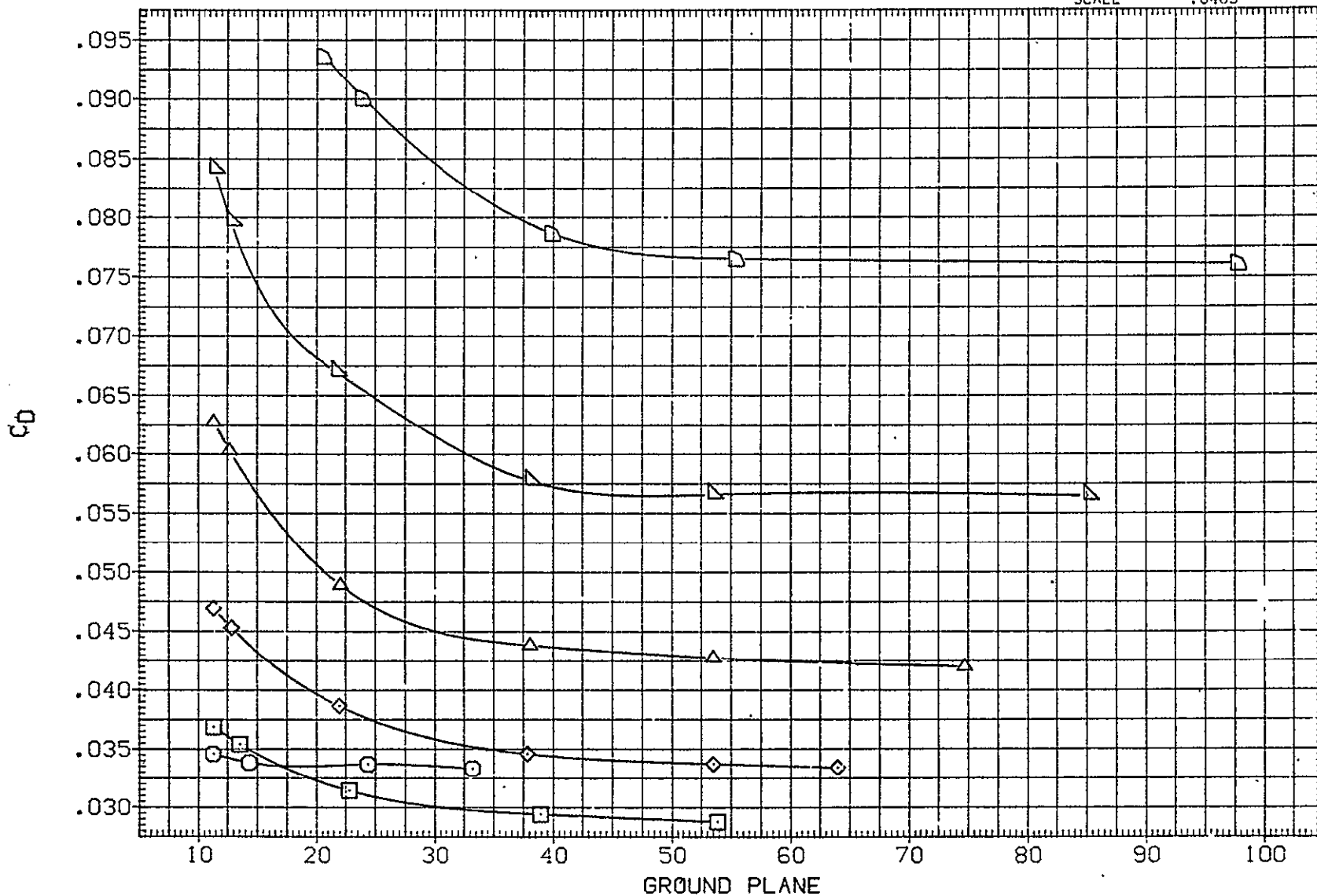


FIG 308 ALT CONFIG IN GROUND PROXIMITY, STAB = 2, FLAPS 30, ICRB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF253) | ○      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | .182   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF254) | □      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 4.155  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF255) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 6.113  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF256) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 8.174  | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF257) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 10.184 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF258) | ◊      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 12.229 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

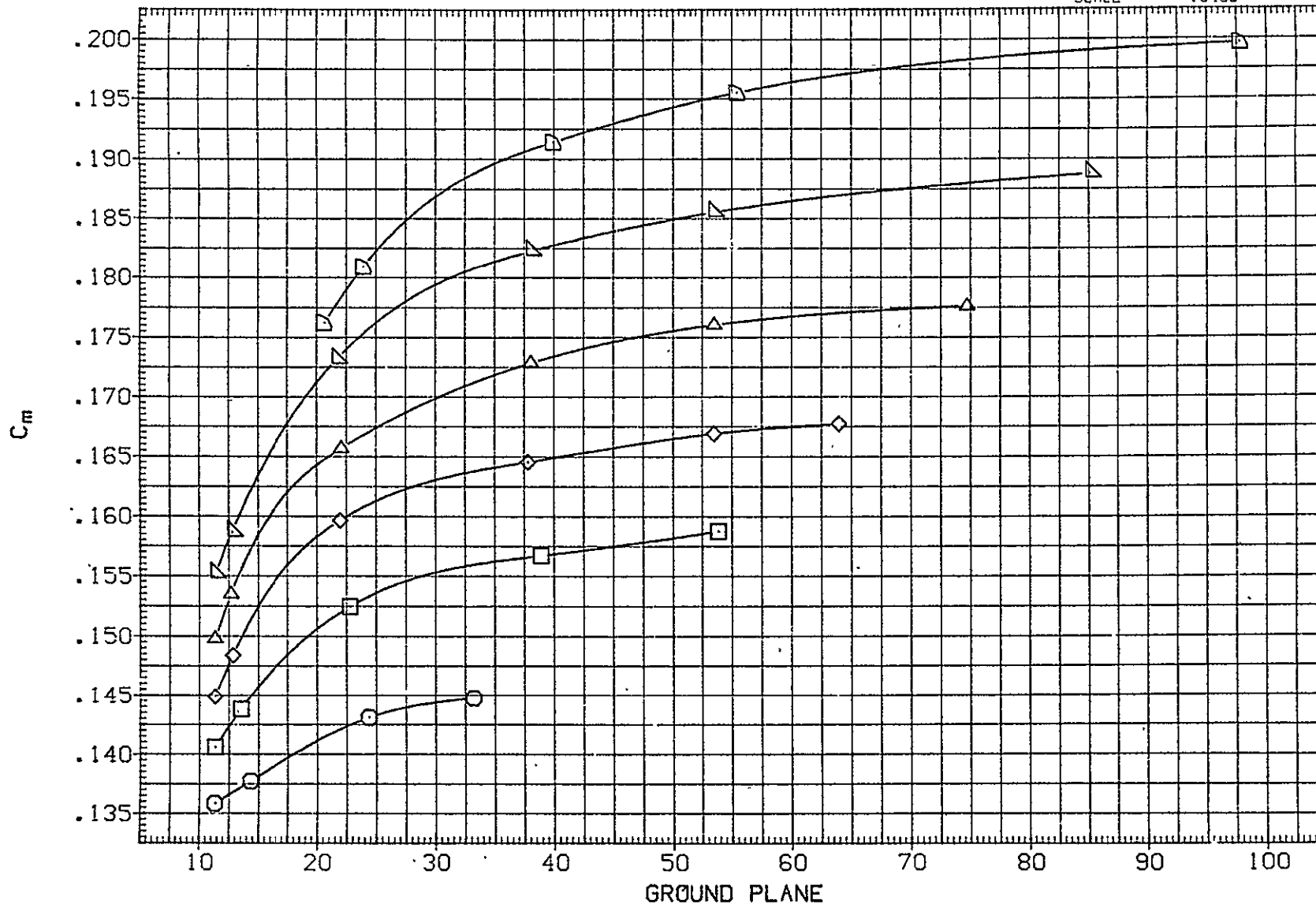


FIG 308 ALT CONFIG IN GROUND PROXIMITY, STAB = 2, FLAPS 30, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF266) | ○      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | .092   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF267) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 4.187  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF268) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 6.100  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF269) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 8.172  | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF270) | □      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 10.130 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF271) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 12.184 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

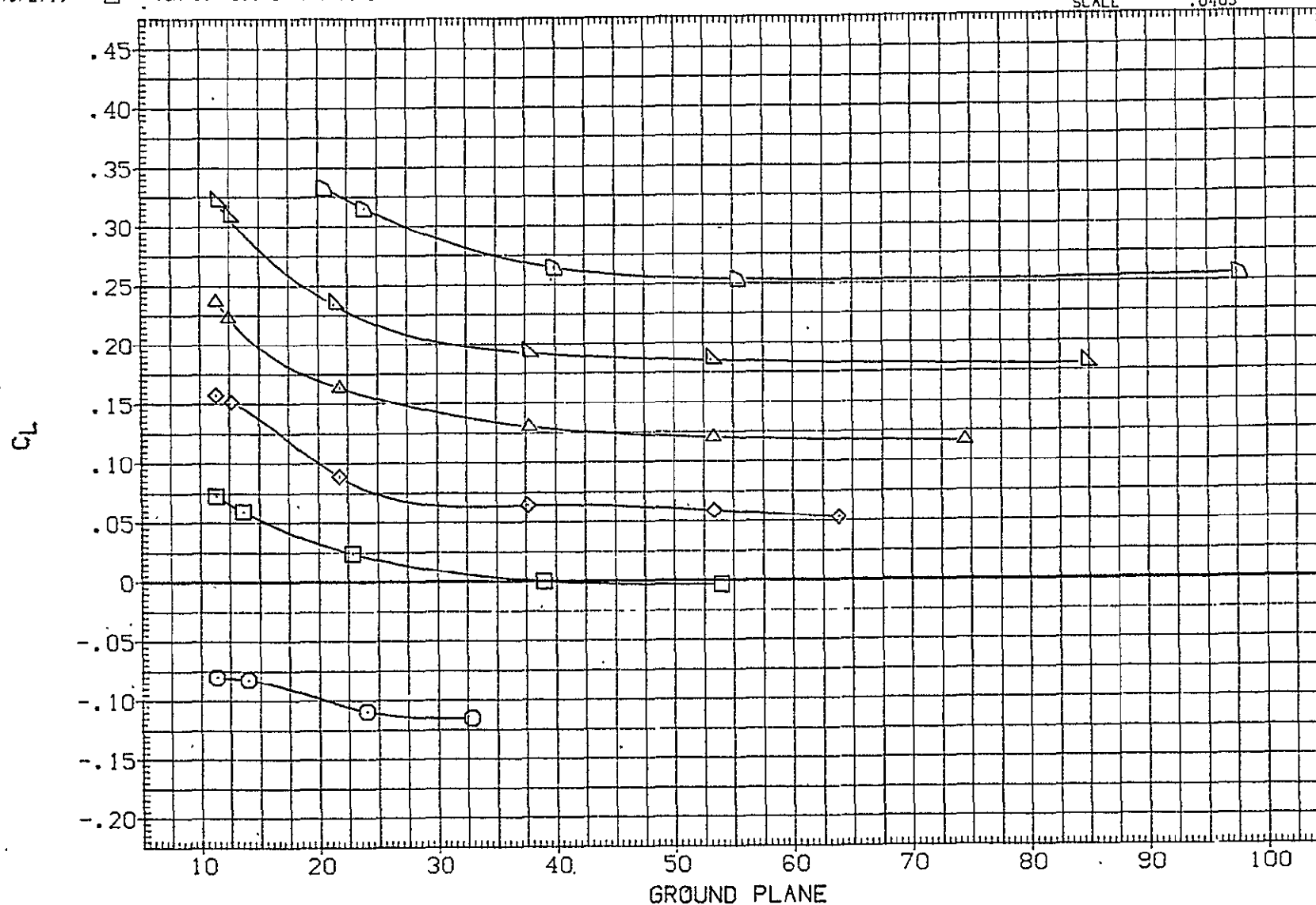


FIG 309 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, FLAPS 30, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA <sub>W</sub> | I <sub>ORB</sub> | B <sub>D</sub> FLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------------------|------------------|---------------------|--------|-----------------------|-----------|-------|
| (TJF266) | ○      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | .092               | 8.000            | .000                | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF267) | □      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 4.187              | 8.000            | .000                | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF268) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 6.100              | 8.000            | .000                | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF269) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 8.172              | 8.000            | .000                | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF270) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 10.130             | 8.000            | .000                | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF271) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 12.184             | 8.000            | .000                | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |                    |                  |                     |        | SCALE                 | .0405     |       |

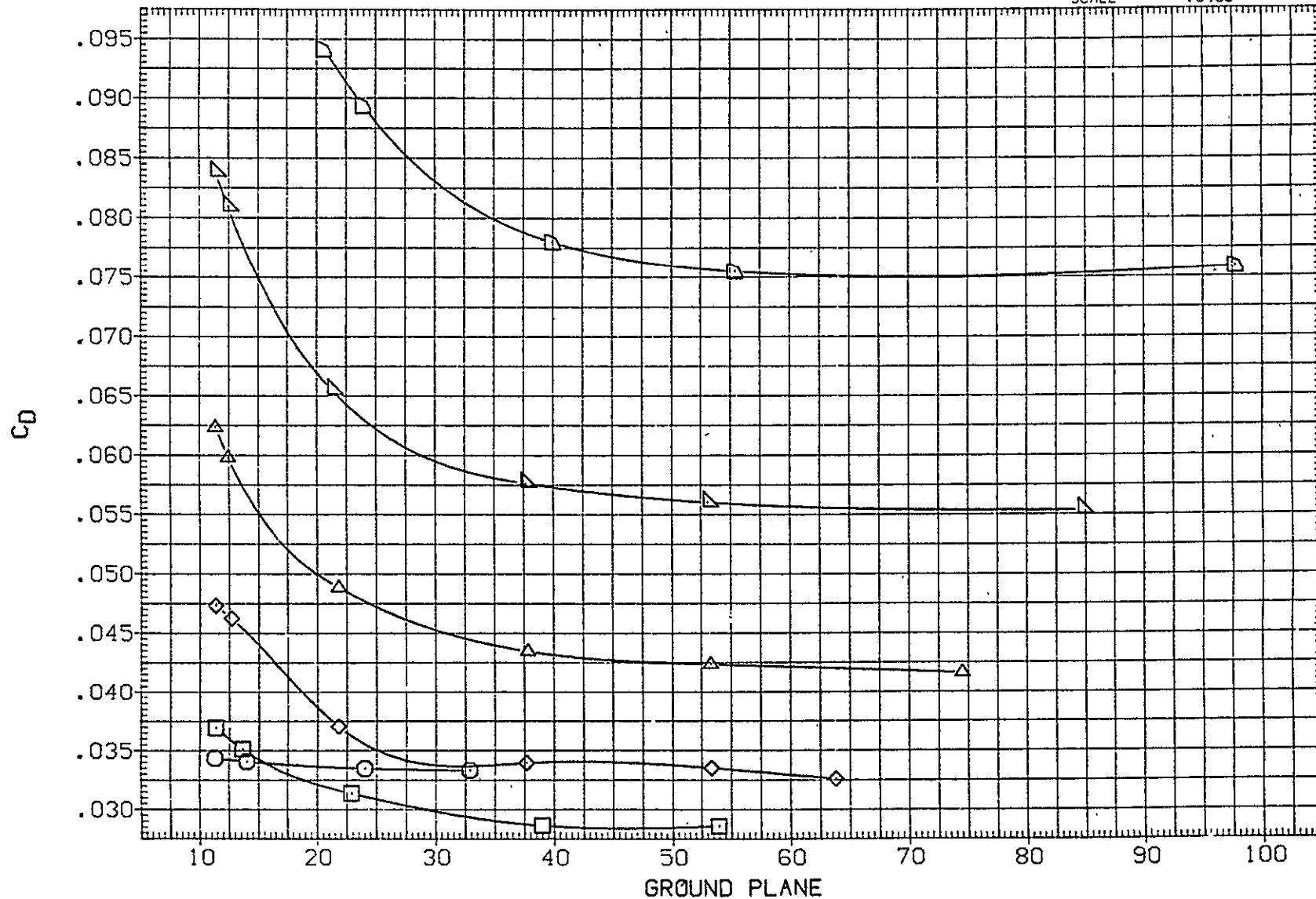


FIG 309 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, FLAPS 30, I<sub>ORB</sub>=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF266) | ○      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | .092   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF267) | □      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 4.187  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF268) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 6.100  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF269) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 8.172  | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF270) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 10.130 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF271) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 12.184 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

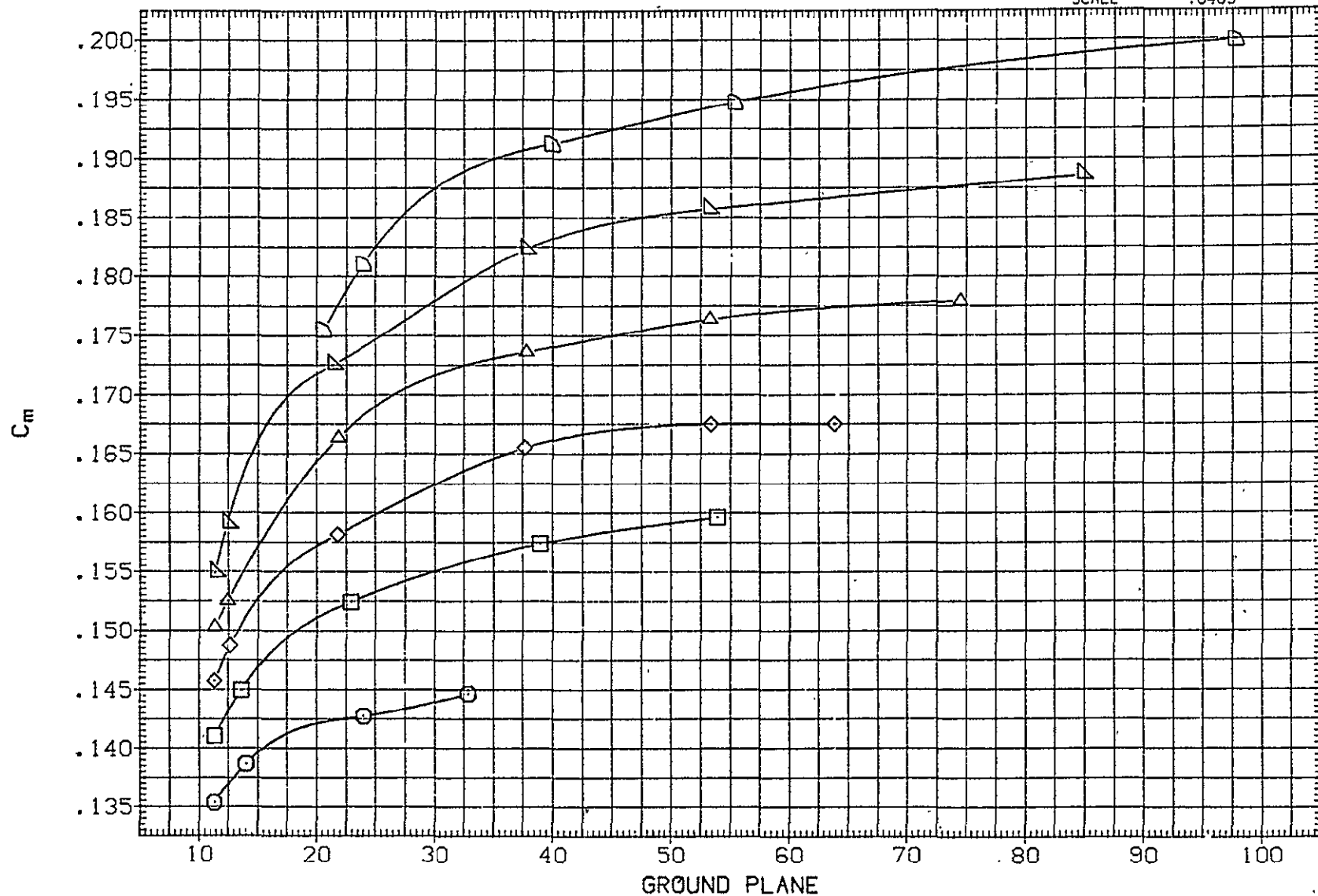


FIG 309 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, FLAPS 30, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF259) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | .137   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF260) | □      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 4.181  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF261) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 6.166  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF262) | △      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 8.149  | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF263) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 10.166 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF264) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 12.163 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

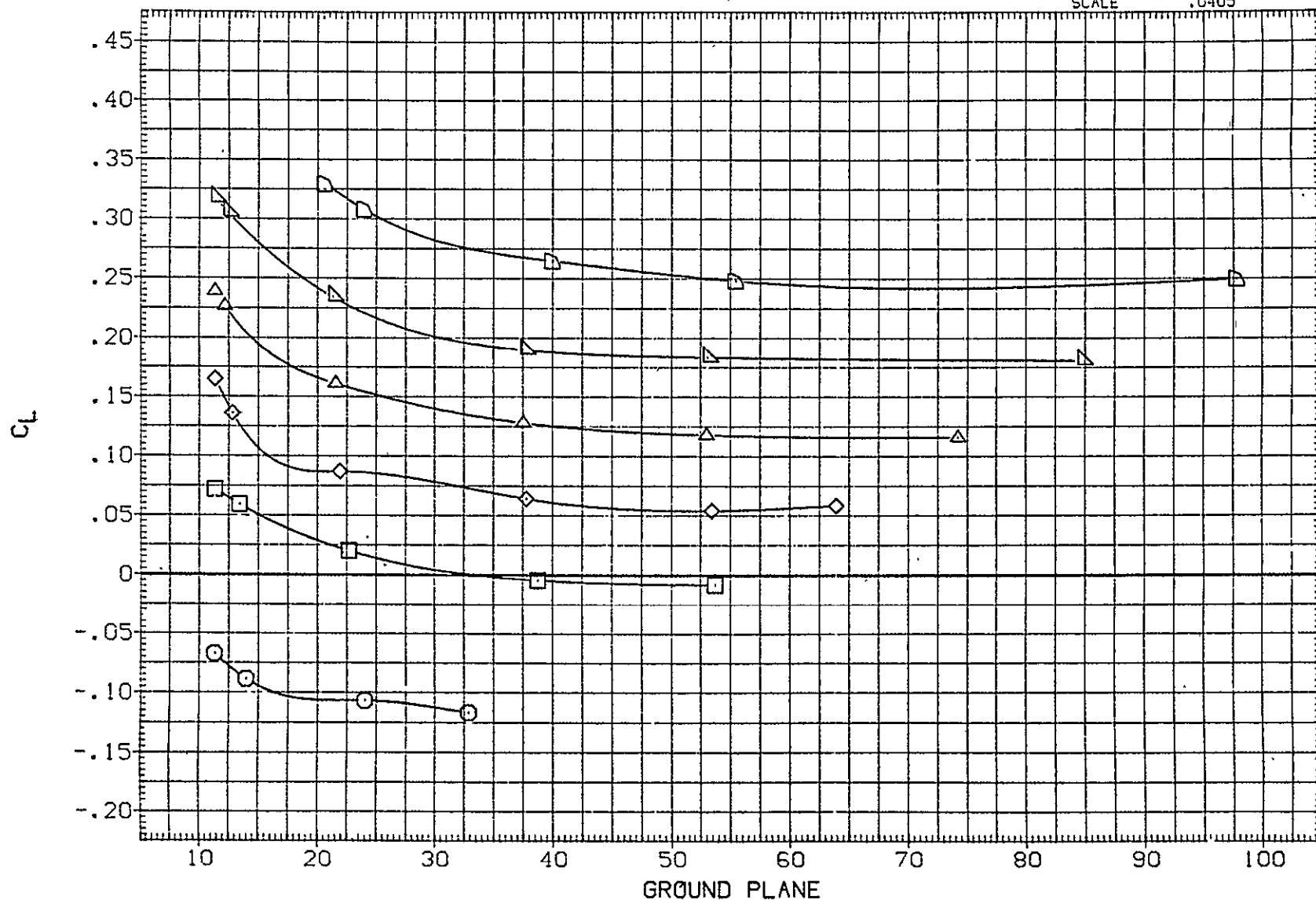


FIG 310 ALT CONFIG IN GROUND PROXIMITY, STAB = -2, FLAPS 30, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF259) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | .137   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF260) | □      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 4.181  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF261) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 6.166  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF262) | △      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 8.149  | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF263) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 10.166 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF264) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 12.163 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

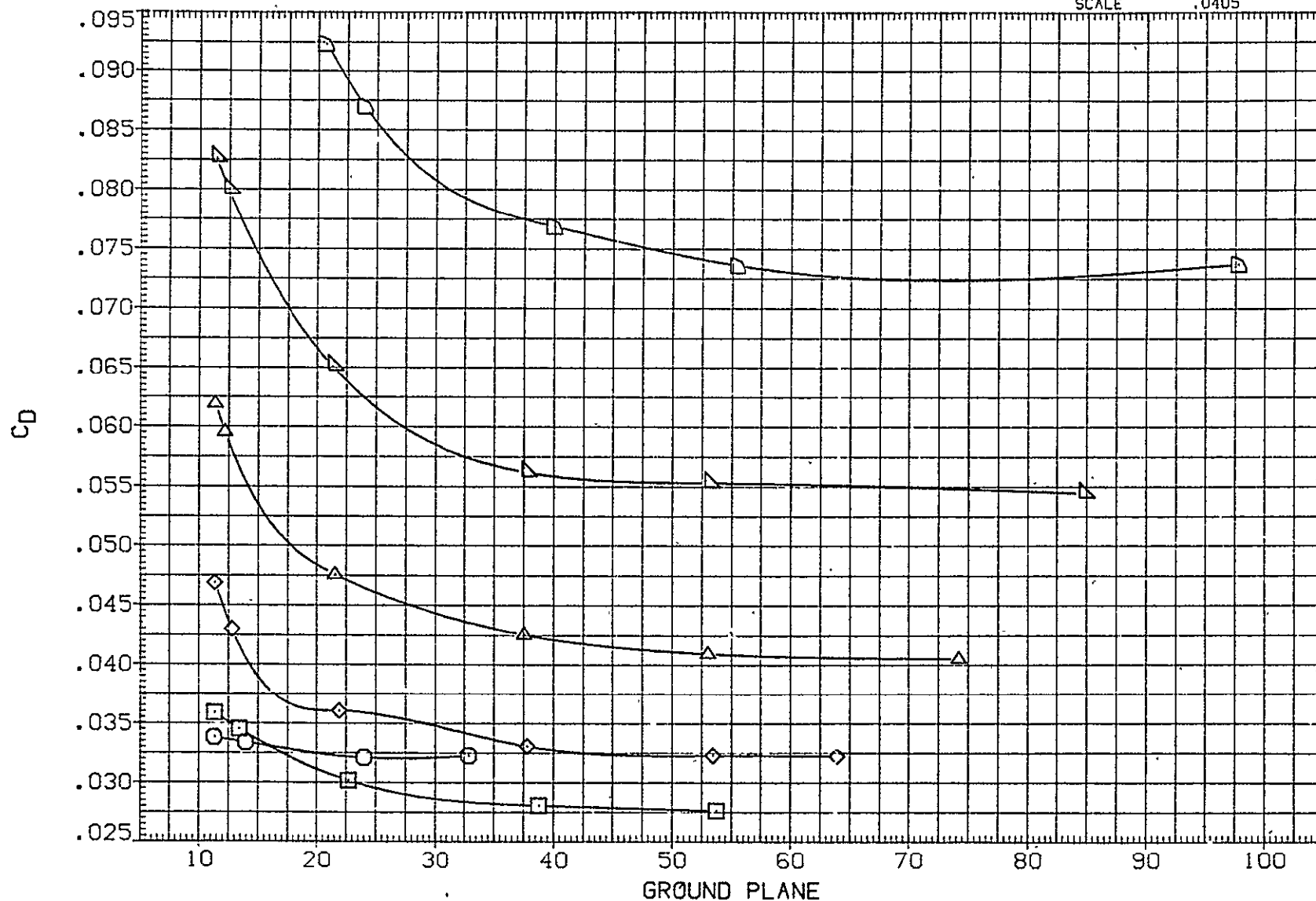


FIG 310 ALT CONFIG IN GROUND PROXIMITY, STAB = -2, FLAPS 30, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHA W | IORB  | BDFLAP | EI EVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|---------|-------|--------|---------|-----------------------|-----------|-------|
| (TJF259) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | .137    | 8.000 | .000   | -5.000  | SREF                  | 2690.0000 | 50.FT |
| (TJF260) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 4.181   | 8.000 | .000   | -5.000  | LREF                  | 474.8100  | IN.   |
| (TJF261) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 6.166   | 8.000 | .000   | -5.000  | BREF                  | 936.6800  | IN.   |
| (TJF262) | △      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 8.149   | 8.000 | .000   | -5.000  | XMRP                  | 1109.0000 | IN.XO |
| (TJF263) | △      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 10.166  | 8.000 | .000   | -5.000  | YMRP                  | .0000     | IN.YO |
| (TJF264) | △      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 12.163  | 8.000 | .000   | -5.000  | ZMRP                  | 375.0000  | IN.ZO |
|          |        |                                     |         |       |        |         | SCALE                 | .0405     |       |

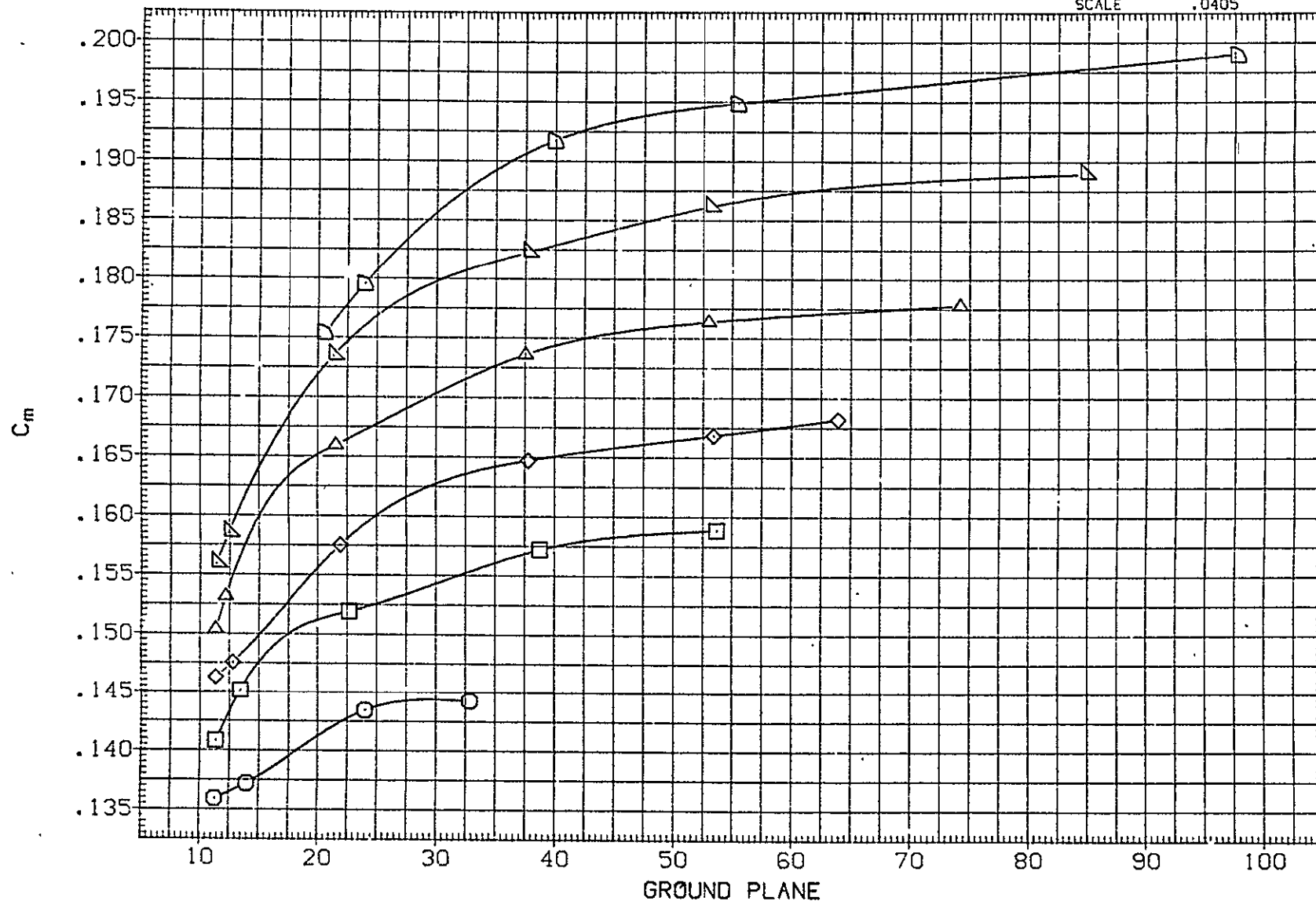


FIG 310 ALT CONFIG IN GROUND PROXIMITY, STAB = -2, FLAPS 30, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF241) | ○      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | .204   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50.FT |
| (TJF242) | □      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 4.127  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF243) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 6.143  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF244) | △      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 8.137  | 8.000 | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF245) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 10.104 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF246) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS40265.3.5 | 12.217 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

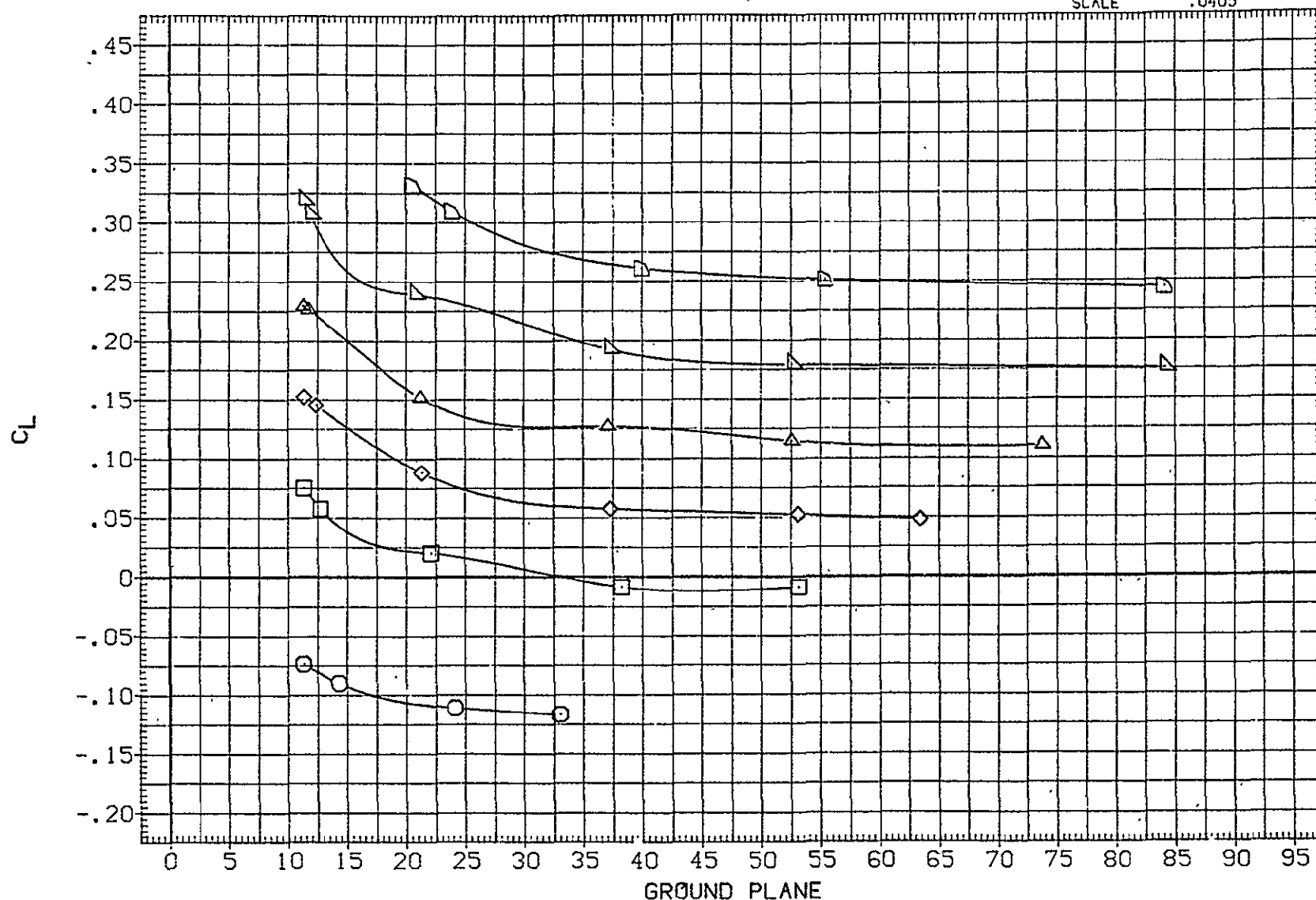


FIG 311 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALPHAW | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |       |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|-------|
| (TJF241) | □      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | .204   | 8.00C | .000   | -5.000 | SREF                  | 2690.0000 | SQ.FT |
| (TJF242) | ○      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 4.127  | 8.00C | .000   | -5.000 | LREF                  | 474.8100  | IN.   |
| (TJF243) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 6.143  | 8.00C | .000   | -5.000 | BREF                  | 936.6800  | IN.   |
| (TJF244) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 8.137  | 8.00C | .000   | -5.000 | XMRP                  | 1109.0000 | IN.X0 |
| (TJF245) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 10.104 | 8.00C | .000   | -5.000 | YMRP                  | .0000     | IN.Y0 |
| (TJF246) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 12.217 | 8.00C | .000   | -5.000 | ZMRP                  | 375.0000  | IN.Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |       |

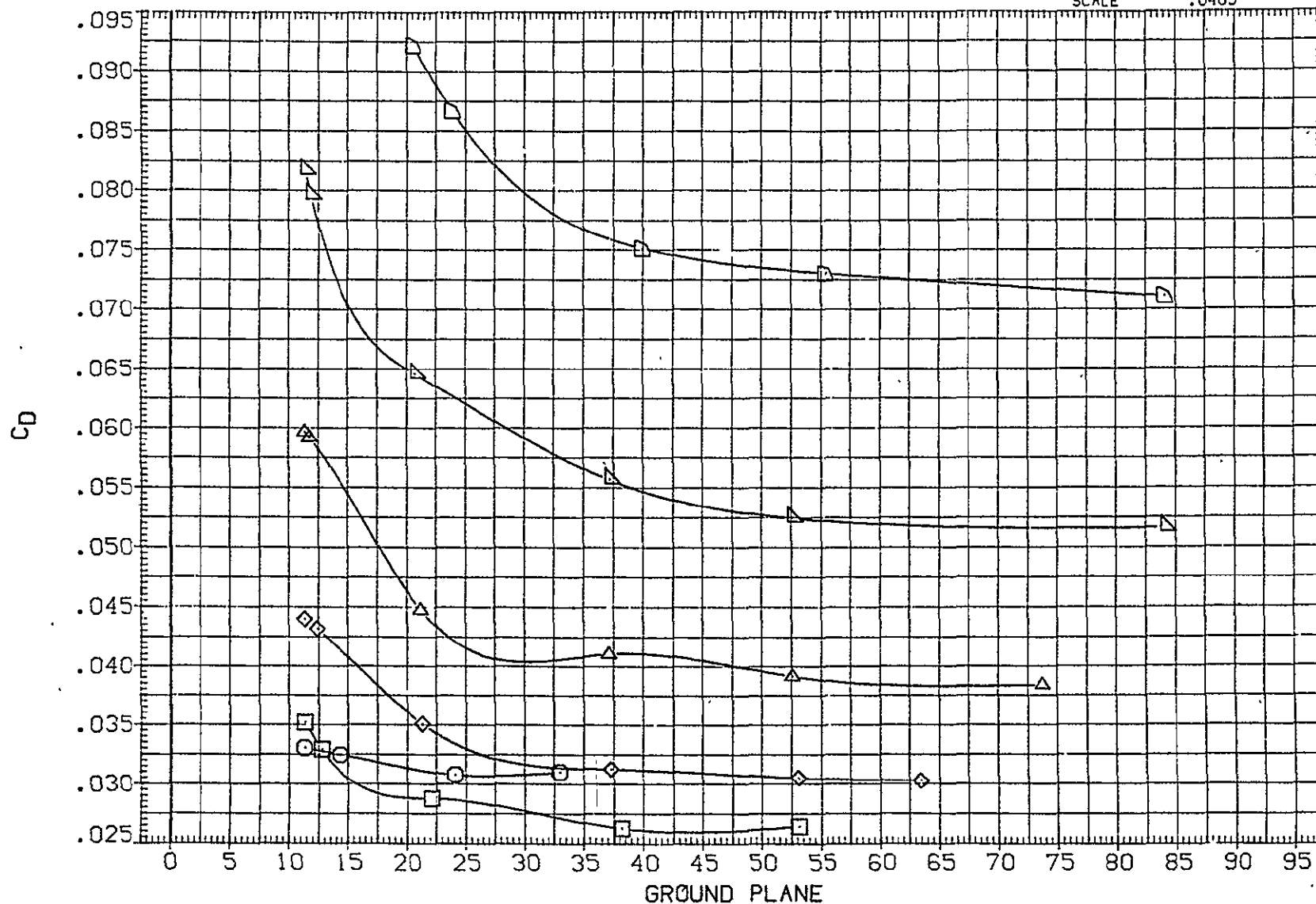


FIG 311 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=8, TC OFF  
ORBITER BALANCE DATA-GF SWEEPS

(A)MACH = .15

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REPRODUCIBILITY OF THE  
ORIGINAL PAGE IS POOR

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION           | ALP W  | IORB  | BDFLAP | ELEVON | REFERENCE INFORMATION |           |        |
|----------|--------|-------------------------------------|--------|-------|--------|--------|-----------------------|-----------|--------|
| (TJF241) | ○      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | .204   | 8.000 | .000   | -5.000 | SREF                  | 2690.0000 | 50. FT |
| (TJF242) | □      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 4.127  | 8.000 | .000   | -5.000 | LREF                  | 474.8100  | IN.    |
| (TJF243) | ◇      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 6.143  | 8.000 | .000   | -5.000 | BREF                  | 936.6800  | IN.    |
| (TJF244) | △      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 8.137  | 8.000 | .000   | -5.000 | XMPP                  | 1109.0000 | IN. X0 |
| (TJF245) | ▽      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 10.104 | 8.000 | .000   | -5.000 | YMRP                  | .0000     | IN. Y0 |
| (TJF246) | ◻      | (CA-8) K3.1TS7H15.6.1F30TS402G5.3.5 | 12.217 | 8.000 | .000   | -5.000 | ZMRP                  | 375.0000  | IN. Z0 |
|          |        |                                     |        |       |        |        | SCALE                 | .0405     |        |

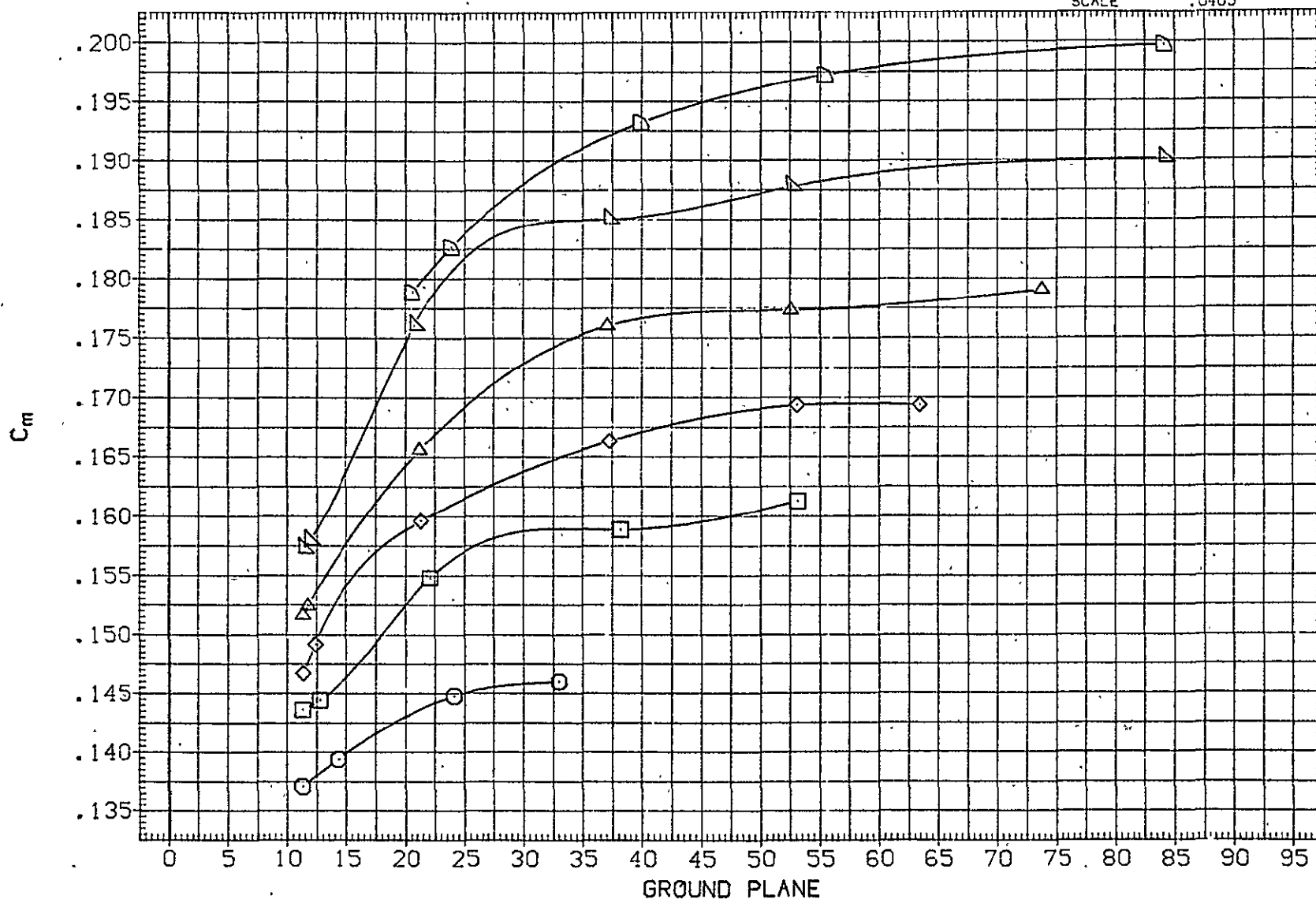


FIG 311 ALT CONFIG IN GROUND PROXIMITY, STAB = 0, ELEVTR=-23, IORB=8, TC OFF  
ORBITER BALANCE DATA-GP SWEEPS

(A)MACH = .15



## APPENDIX

### TABULATED SOURCE DATA

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|----------|---------------|
| Volume 2 | Pages 1-333   |
| Volume 3 | Pages 334-966 |

Tabulations of plotted data are available  
on request from Data Management Services.

DATE 06 JUL 76

## CA-8 - FORCE SOURCE DATA TABULATION

PAGE 1

(CA-8) K1V9.1.2TS1

(RJF001) ( 18 JUN 75 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090

| RUN NO. |          | 1/ 0   | RN/L =   | .00     | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |
|---------|----------|--------|----------|---------|---------------------------------|---------|---------|---------|---------|
| MACH    | ALPHAW   | BETA   | Q(PSF)   | CL      | CD                              | CLM     | CLN     | CSL     | CY      |
| .155    | -2.155   | .00000 | 35.01745 | -.19846 | .03437                          | -.04502 | .00284  | -.00102 | -.00986 |
| .154    | -.112    | .00000 | 35.01016 | -.02406 | .02654                          | -.03341 | .00257  | -.00047 | -.01000 |
| .155    | 1.970    | .00000 | 35.01985 | .15368  | .02540                          | -.01940 | .00251  | .00079  | -.00767 |
| .154    | 3.979    | .00000 | 35.00379 | .30734  | .02938                          | -.00247 | .00241  | .00027  | -.00978 |
| .155    | 5.971    | .00000 | 35.07741 | .47134  | .03618                          | .00984  | .00270  | .00060  | -.01031 |
| .154    | 8.043    | .00000 | 34.89838 | .62921  | .04863                          | .02769  | .00216  | -.00094 | -.01133 |
| .155    | 10.029   | .00000 | 35.08766 | .75688  | .06849                          | .05054  | .00174  | -.00200 | -.00798 |
| .155    | 12.021   | .00000 | 35.35407 | .87429  | .10383                          | .08219  | .00124  | -.00015 | -.00298 |
| .155    | 14.036   | .00000 | 35.43107 | .99121  | .16308                          | .09907  | .00211  | -.00184 | -.00432 |
| .155    | 16.160   | .00000 | 35.36738 | 1.08531 | .23404                          | .12170  | .00255  | -.00090 | -.00796 |
| .155    | 18.090   | .00000 | 35.45875 | 1.14661 | .30147                          | .13107  | .00274  | -.00105 | -.00705 |
| .156    | 20.166   | .00000 | 35.65169 | 1.13355 | .36090                          | .11488  | .00126  | -.00127 | -.00410 |
| .156    | 22.150   | .00000 | 35.75895 | 1.09895 | .40308                          | .15103  | .00077  | .00029  | -.00674 |
| .157    | 24.123   | .00000 | 35.96720 | 1.09342 | .44528                          | .16546  | -.00031 | .00147  | -.00323 |
| .157    | 25.151   | .00000 | 36.07620 | 1.09460 | .46856                          | .16695  | .00007  | .00100  | -.00421 |
| .157    | 26.058   | .00000 | 35.99965 | 1.10053 | .49178                          | .16605  | .00027  | .00073  | -.00123 |
|         | GRADIENT | .00000 | -.00151  | .08277  | -.00079                         | .00691  | -.00007 | .00025  | .00013  |

DATE 06 JUL 76

## CA-8 - FORCE SOURCE DATA TABULATION

PAGE 2

(CA-8) KIV9.1.2TSIH15.1

(RJF002) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = 3.000 ELEVTR = .000

| RUN NO. |          | 2/ 0   | RN/L =   | .00     | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |
|---------|----------|--------|----------|---------|---------------------------------|---------|---------|---------|---------|
| MACH    | ALPHAW   | BETA   | Q (PSF)  | CL      | CD                              | CLM     | CLN     | CSL     | CY      |
| .154    | -2.502   | .00000 | 34.90964 | -.22912 | .03865                          | -.04888 | .00155  | -.00044 | -.00621 |
| .154    | .187     | .00000 | 34.80700 | .01028  | .02795                          | -.12121 | .00154  | .00018  | -.00592 |
| .154    | 2.244    | .00000 | 35.05633 | .20461  | .02911                          | -.17623 | .00139  | -.00014 | -.00564 |
| .155    | 4.305    | .00000 | 35.13496 | .37992  | .03677                          | -.22686 | .00102  | -.00020 | -.00417 |
| .154    | 5.226    | .00000 | 35.11477 | .46313  | .04219                          | -.25221 | .00107  | -.00046 | -.00563 |
| .154    | 6.300    | .00000 | 35.08649 | .55641  | .04889                          | -.27931 | .00097  | .00031  | -.00243 |
| .155    | 8.302    | .00000 | 35.15142 | .71777  | .06602                          | -.31530 | .00138  | -.00167 | -.00482 |
| .155    | 10.176   | .00000 | 35.14053 | .85505  | .08932                          | -.32766 | .00041  | -.00177 | -.00374 |
| .155    | 12.355   | .00000 | 35.25389 | .98667  | .13478                          | -.32582 | .00052  | -.00171 | -.00083 |
| .155    | 14.373   | .00000 | 35.37438 | 1.09596 | .19894                          | -.33600 | .00050  | -.00099 | -.00144 |
| .155    | 16.451   | .00000 | 35.45500 | 1.20741 | .27820                          | -.34192 | .00114  | -.00093 | -.00282 |
| .156    | 18.429   | .00000 | 35.84366 | 1.26845 | .35574                          | -.37899 | .00090  | -.00212 | -.00290 |
| .157    | 20.412   | .00000 | 36.11261 | 1.27173 | .42005                          | -.49909 | .00048  | -.00343 | -.00015 |
| .157    | 22.438   | .00000 | 36.28558 | 1.26712 | .47757                          | -.56322 | -.00054 | -.00050 | .00211  |
| .157    | 24.437   | .00000 | 36.07797 | 1.29353 | .54078                          | -.66839 | -.00105 | .00062  | .00558  |
| .157    | 25.434   | .00000 | 36.23355 | 1.31235 | .57452                          | -.72761 | -.00128 | .00061  | .00313  |
| .157    | 26.200   | .00000 | 36.14426 | 1.32309 | .60024                          | -.75614 | -.00098 | .00060  | .00353  |
|         | GRADIENT | .00000 | .03920   | .08994  | -.00032                         | -.02623 | -.00007 | .00002  | .00028  |

REPRODUCIBILITY OF THE  
 ORIGINAL PAGE IS POOR

DATE 06 JUL 76

## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2TS2H15.1F10

(RJFD003) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000

RUN NO. 3/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHA  | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|----------|--------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155     | -2.514 | .00000 | 35.19488 | -.29019 | .04066  | .17992  | .00183  | .00038  | -.00444 |
| .155     | .126   | .00000 | 35.18804 | -.04938 | .02776  | .11709  | .00231  | .00033  | -.00846 |
| .155     | 2.230  | .00000 | 35.14849 | .13895  | .02622  | .06847  | .00154  | -.00024 | -.00534 |
| .155     | 3.198  | .00000 | 35.13296 | .22697  | .02830  | .04861  | .00171  | .00060  | -.00630 |
| .154     | 4.198  | .00000 | 34.84112 | .30668  | .03128  | .02662  | .00132  | -.00014 | -.00495 |
| .154     | 5.322  | .00000 | 35.05325 | .40956  | .03526  | .00182  | .00116  | .00053  | -.00378 |
| .154     | 6.369  | .00000 | 35.05440 | .50231  | .04013  | -.02032 | .00138  | -.00029 | -.00429 |
| .155     | 7.375  | .00000 | 35.15730 | .58211  | .04669  | -.04122 | .00133  | -.00061 | -.00366 |
| .154     | 8.229  | .00000 | 35.06187 | .65493  | .05229  | -.05872 | .00108  | -.00026 | -.00398 |
| .154     | 9.272  | .00000 | 35.05637 | .72248  | .06150  | -.07066 | .00077  | -.00163 | -.00284 |
| .154     | 10.288 | .00000 | 35.05024 | .79996  | .07508  | -.07732 | .00038  | -.00177 | -.00328 |
| .155     | 11.318 | .00000 | 35.23689 | .86414  | .09351  | -.07404 | .00019  | -.00125 | -.00171 |
| .154     | 12.422 | .00000 | 34.95325 | .93371  | .11768  | -.07851 | .00068  | -.00173 | -.00344 |
| .155     | 13.385 | .00000 | 35.25885 | .99782  | .14871  | -.08547 | .00052  | -.00138 | -.00186 |
| .155     | 14.331 | .00000 | 35.40267 | 1.04072 | .17843  | -.08972 | .00102  | -.00164 | -.00219 |
| .155     | 15.469 | .00000 | 35.56492 | 1.10065 | .21749  | -.08962 | .00089  | -.00099 | -.00311 |
| .155     | 16.372 | .00000 | 35.55563 | 1.14673 | .25231  | -.09136 | .00100  | -.00081 | -.00441 |
| .155     | 17.428 | .00000 | 35.55461 | 1.18523 | .28980  | -.10163 | .00077  | -.00093 | -.00170 |
| .156     | 18.476 | .00000 | 35.72861 | 1.21111 | .32970  | -.13501 | .00061  | -.00166 | -.00227 |
| .156     | 19.359 | .00000 | 35.70009 | 1.21987 | .35920  | -.18714 | .00071  | -.00272 | -.00207 |
| .156     | 20.383 | .00000 | 35.67542 | 1.22015 | .38923  | -.26773 | .00038  | -.00147 | -.00205 |
| .156     | 21.450 | .00000 | 35.78039 | 1.21245 | .41687  | -.29993 | .00063  | -.00063 | -.00135 |
| .156     | 22.456 | .00000 | 35.68152 | 1.21519 | .44422  | -.31986 | -.00042 | -.00066 | .00040  |
| .156     | 23.463 | .00000 | 35.75550 | 1.23326 | .47590  | -.38658 | -.00092 | -.00028 | .00008  |
| .157     | 24.361 | .00000 | 36.32117 | 1.24637 | .50256  | -.45091 | -.00149 | .00028  | .00290  |
| .157     | 25.498 | .00000 | 36.27240 | 1.26900 | .53864  | -.52201 | -.00177 | .00049  | .00362  |
| .157     | 26.253 | .00000 | 36.18105 | 1.28442 | .56414  | -.56668 | -.00112 | .00018  | .00194  |
| GRADIENT |        | .00000 | -.03866  | .08941  | -.00145 | -.02286 | -.00009 | -.00005 | -.00000 |

DATE 06 JUL 76

## CA-B - FORCE SOURCE DATA TABULATION

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(CA-8) KIV9.1.2TS2H15.1F10

(RJF004) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000

| RUN. NO. | 4/ 0     | RN/L = | .00      | GRADIENT INTERVAL = | -5.00/  | 5.00    |         |         |         |
|----------|----------|--------|----------|---------------------|---------|---------|---------|---------|---------|
| MACH     | ALPHA    | BETA   | Q(PSF)   | CL                  | CD      | CLM     | CLN     | CSL     | CY      |
| .155     | -2.753   | .00000 | 35.13482 | -.18782             | .08814  | .18435  | .00230  | -.00196 | -.01092 |
| .154     | .155     | .00000 | 35.04267 | .08910              | .06305  | .11970  | .00202  | -.00089 | -.00879 |
| .154     | 2.249    | .00000 | 35.00294 | .28777              | .05758  | .07264  | .00212  | -.00060 | -.00872 |
| .154     | 4.241    | .00000 | 34.98635 | .49343              | .05914  | .02994  | .00177  | .00077  | -.00865 |
| .154     | 6.360    | .00000 | 35.01428 | .69997              | .06985  | -.01154 | .00151  | -.00067 | -.00632 |
| .155     | 8.327    | .00000 | 35.13671 | .87746              | .08751  | -.05144 | .00106  | -.00018 | -.00613 |
| .155     | 10.374   | .00000 | 35.21464 | 1.07356             | .11205  | -.09098 | .00168  | -.00089 | -.01023 |
| .155     | 12.444   | .00000 | 35.14245 | 1.23610             | .14146  | -.13289 | .00117  | -.00099 | -.01072 |
| .155     | 14.388   | .00000 | 35.27084 | 1.42345             | .17227  | -.18463 | .00096  | -.00199 | -.00870 |
| .155     | 15.428   | .00000 | 35.11023 | 1.49815             | .19101  | -.20087 | .00072  | -.00242 | -.00866 |
| .154     | 16.398   | .00000 | 35.08997 | 1.57466             | .20790  | -.20491 | .00044  | -.00243 | -.00639 |
| .155     | 17.444   | .00000 | 35.21454 | 1.63095             | .22790  | -.20384 | .00021  | -.00167 | -.00696 |
| .154     | 18.463   | .00000 | 35.06181 | 1.67783             | .25027  | -.20119 | .00033  | -.00168 | -.00484 |
| .155     | 20.475   | .00000 | 35.47231 | 1.71633             | .31442  | -.23402 | .00200  | -.00569 | -.00247 |
| .155     | 21.524   | .00000 | 35.41027 | 1.71555             | .36279  | -.30375 | .00208  | -.00438 | -.00455 |
| .155     | 22.550   | .00000 | 35.33918 | 1.72331             | .40241  | -.38591 | .00104  | -.00247 | -.00235 |
| .156     | 23.465   | .00000 | 35.61084 | 1.71040             | .43651  | -.50714 | .00198  | -.00319 | -.00526 |
| .156     | 24.539   | .00000 | 35.68808 | 1.67049             | .47407  | -.69431 | -.00545 | .00149  | -.00782 |
| .157     | 25.446   | .00000 | 36.04451 | 1.67700             | .50455  | -.76464 | -.00476 | .00019  | -.00663 |
| .157     | 26.263   | .00000 | 36.12363 | 1.68882             | .53128  | -.80040 | -.00226 | -.00064 | -.00844 |
|          | GRADIENT | .00000 | -.02152  | .09705              | -.00422 | -.02212 | -.00006 | .00036  | .00032  |

DATE 06 JUL 76

## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2TS2H15.1F10

(RJF005) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = 17.000

| RUN NO. |          | 5/ 0   | RN/L =   | .00     | GRADIENT INTERVAL = -5.00/ 5.00 |          |         |         |         |
|---------|----------|--------|----------|---------|---------------------------------|----------|---------|---------|---------|
| MACH    | ALPHAW   | BETA   | Q(PSF)   | CL      | CD                              | CLM      | CLN     | CSL     | CY      |
| .155    | -2.613   | .00000 | 35.23541 | -.06673 | .08296                          | -.23556  | .00119  | -.00106 | -.00632 |
| .155    | .186     | .00000 | 35.19521 | .20573  | .06570                          | -.30861  | .00130  | -.00046 | -.00539 |
| .155    | 2.195    | .00000 | 35.17467 | .39809  | .06347                          | -.35948  | .00182  | -.00056 | -.00650 |
| .155    | 4.352    | .00000 | 35.25276 | .61286  | .06996                          | -.40569  | .00133  | -.00077 | -.00587 |
| .154    | 6.385    | .00000 | 34.97636 | .80525  | .08409                          | -.44847  | .00114  | -.00071 | -.00325 |
| .154    | 8.294    | .00000 | 35.01449 | .99647  | .10379                          | -.49459  | .00111  | -.00151 | -.00554 |
| .154    | 10.415   | .00000 | 35.05337 | 1.18320 | .13361                          | -.53251  | .00099  | -.00166 | -.00551 |
| .154    | 12.379   | .00000 | 35.05731 | 1.35773 | .16422                          | -.56928  | .00086  | -.00215 | -.00606 |
| .155    | 14.418   | .00000 | 35.20926 | 1.53443 | .19863                          | -.59809  | .00089  | -.00166 | -.00566 |
| .155    | 15.472   | .00000 | 35.16394 | 1.60592 | .21812                          | -.59521  | .00108  | -.00183 | -.00647 |
| .155    | 16.487   | .00000 | 35.22991 | 1.67646 | .23670                          | -.59124  | .00084  | -.00274 | -.00451 |
| .155    | 17.448   | .00000 | 35.16061 | 1.72144 | .25624                          | -.56754  | .00055  | -.00320 | -.00367 |
| .155    | 18.463   | .00000 | 35.26647 | 1.76096 | .27979                          | -.55628  | .00058  | -.00157 | -.00403 |
| .155    | 19.462   | .00000 | 35.37434 | 1.79606 | .30345                          | -.54361  | .00100  | -.00223 | -.00345 |
| .155    | 20.570   | .00000 | 35.47744 | 1.79035 | .35132                          | -.58597  | .00290  | -.00628 | .00204  |
| .156    | 21.488   | .00000 | 35.53336 | 1.79336 | .39473                          | -.65604  | .00168  | -.00380 | .00236  |
| .155    | 22.601   | .00000 | 35.39045 | 1.80508 | .43948                          | -.76574  | .00178  | -.00321 | -.00192 |
| .155    | 23.508   | .00000 | 35.91509 | 1.79256 | .47504                          | -.87902  | .00178  | -.00307 | -.00246 |
| .156    | 24.535   | .00000 | 35.57664 | 1.75801 | .51295                          | -1.02380 | -.00362 | .00076  | -.00215 |
| .156    | 25.457   | .00000 | 35.68746 | 1.75756 | .54394                          | -1.09012 | -.00536 | .00126  | -.00364 |
| .157    | 26.265   | .00000 | 36.05241 | 1.76028 | .57007                          | -1.11018 | -.00256 | .00009  | -.00353 |
|         | GRADIENT | .00000 | .00079   | .09740  | -.00195                         | -.02456  | .00004  | .00004  | .00002  |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2TS2H15.1F10

(RJF006) (18 JUN 76)

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = 10.000

| RUN NO. |          | 6/ 0   | RN/L =   | .00     | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |
|---------|----------|--------|----------|---------|---------------------------------|---------|---------|---------|---------|
| MACH    | ALPHAW   | BETA   | Q(PSF)   | CL      | CD                              | CLM     | CLN     | CSL     | CY      |
| .154    | .583     | .00000 | 35.11725 | -.05821 | .07579                          | -.08134 | .00161  | -.00011 | -.00588 |
| .155    | 2.578    | .00000 | 35.19316 | .13631  | .07137                          | -.12924 | .00172  | -.00044 | -.00511 |
| .155    | 4.661    | .00000 | 35.41234 | .53468  | .07606                          | -.18299 | .00125  | -.00054 | -.00397 |
| .155    | 6.674    | .00000 | 35.33064 | .53171  | .08823                          | -.22745 | .00130  | -.00170 | -.00331 |
| .154    | 8.735    | .00000 | 35.07134 | .73633  | .10895                          | -.27173 | .00147  | -.00065 | -.00262 |
| .155    | 10.718   | .00000 | 35.13132 | .91747  | .13540                          | -.31582 | .00113  | .00012  | -.00074 |
| .154    | 12.779   | .00000 | 35.10537 | 1.10604 | .17090                          | -.35408 | .00103  | -.00135 | -.00169 |
| .155    | 14.912   | .00000 | 35.29210 | 1.29508 | .20996                          | -.39866 | .00105  | -.00085 | -.00127 |
| .155    | 16.837   | .00000 | 35.35633 | 1.44946 | .25082                          | -.43534 | .00086  | -.00162 | .00349  |
| .155    | 18.786   | .00000 | 35.36975 | 1.60114 | .29297                          | -.44169 | .00054  | -.00223 | -.00097 |
| .156    | 20.853   | .00000 | 35.67215 | 1.69859 | .33858                          | -.41557 | .00016  | -.00067 | .00437  |
| .156    | 22.932   | .00000 | 35.71819 | 1.75166 | .39971                          | -.42096 | .00177  | -.00449 | .00462  |
| .156    | 24.875   | .00000 | 35.92833 | 1.75409 | .49104                          | -.56831 | .00129  | -.00231 | -.00152 |
| .157    | 26.849   | .00000 | 36.04476 | 1.71480 | .56334                          | -.83073 | -.00643 | .00297  | -.00206 |
| .156    | 28.867   | .00000 | 35.93595 | 1.71805 | .63328                          | -.98529 | -.00281 | -.00056 | .00096  |
|         | GRADIENT | .00000 | .07260   | .09634  | .00008                          | -.02493 | -.00009 | -.00011 | .00047  |

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CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2TS2H15.1F10

(RJF007) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -10.000

| RUN NO. 7/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |         |         |
|--------------|----------|------------|---------------------------------|---------|---------|---------|---------|---------|---------|
| MACH         | ALPHAW   | BETA       | Q(PSP)                          | CL      | CD      | CLM     | CLN     | CSL     | CY      |
| .154         | .554     | .00000     | 35.07843                        | -.18641 | .07715  | .39527  | .00152  | -.00065 | -.00448 |
| .154         | 2.583    | .00000     | 35.04464                        | .00707  | .05958  | .35637  | .00223  | -.00025 | -.00536 |
| .154         | 4.680    | .00000     | 35.02258                        | .21883  | .07011  | .30474  | .00181  | -.00065 | -.00739 |
| .154         | 6.643    | .00000     | 35.12722                        | .40727  | .07919  | .26138  | .00162  | .00053  | -.00482 |
| .155         | 8.673    | .00000     | 35.30274                        | .60523  | .09463  | .22008  | .00205  | -.00128 | -.00507 |
| .155         | 10.754   | .00000     | 35.23044                        | .79406  | .11861  | .17674  | .00146  | -.00073 | -.00428 |
| .155         | 12.725   | .00000     | 35.27935                        | .97620  | .14830  | .14803  | .00105  | -.00037 | -.00357 |
| .155         | 14.790   | .00000     | 35.23389                        | 1.16025 | .18300  | .10424  | .00147  | -.00073 | -.00349 |
| .155         | 16.844   | .00000     | 35.47300                        | 1.33509 | .22240  | .04906  | .00101  | -.00191 | -.00063 |
| .155         | 18.815   | .00000     | 35.39256                        | 1.49543 | .26254  | .00744  | .00047  | -.00217 | -.00076 |
| .155         | 20.901   | .00000     | 35.44720                        | 1.60283 | .30827  | -.00712 | .00007  | -.00176 | .00007  |
| .155         | 22.909   | .00000     | 35.55256                        | 1.66713 | .35834  | -.01336 | .00037  | -.00183 | .00160  |
| .156         | 24.904   | .00000     | 35.68959                        | 1.66305 | .45297  | -.15480 | .00072  | -.00096 | -.00188 |
| .156         | 26.938   | .00000     | 35.79856                        | 1.61901 | .52240  | -.41321 | -.00481 | .00253  | -.00107 |
| .156         | 28.952   | .00000     | 35.86613                        | 1.62077 | .58926  | -.58917 | -.00445 | .00022  | .00145  |
|              | GRADIENT | .00000     | -.01304                         | .09823  | -.00170 | -.02196 | .00007  | -.00000 | -.00071 |

REPRODUCIBILITY OF THE  
 ORIGINAL PAGE IS POOR



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## CA-8 - FORCE SOURCE DATA TABULATION

PAGE 8

(CA-8) KIV9.1.2TS2H15.1F10

(RJF008) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -10.000

| RUN NO.  |        | 8/ 0   | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |         |
|----------|--------|--------|------------|---------------------------------|---------|---------|---------|---------|---------|
| MACH     | ALPHAW | BETA   | Q(PSF)     | CL                              | CD      | CLM     | CLN     | CSL     | CY      |
| .155     | .492   | .00000 | 35.18949   | -.19301                         | .07501  | .40567  | .00120  | .00057  | -.00313 |
| .154     | 2.555  | .00000 | 35.14064   | -.00133                         | .06702  | .36219  | .00172  | -.00003 | -.00544 |
| .155     | 4.587  | .00000 | 35.23312   | .20760                          | .06748  | .31286  | .00219  | .00013  | -.00706 |
| .155     | 6.648  | .00000 | 35.19103   | .40023                          | .07653  | .27014  | .00118  | -.00028 | -.00315 |
| .155     | 8.730  | .00000 | 35.33821   | .59534                          | .09341  | .22957  | .00089  | -.00006 | -.00281 |
| .155     | 10.760 | .00000 | 35.21416   | .79630                          | .11704  | .18584  | .00166  | -.00016 | -.00405 |
| .154     | 12.760 | .00000 | 35.14584   | .98621                          | .14639  | .15168  | .00087  | -.00032 | -.00146 |
| .155     | 14.788 | .00000 | 35.23608   | 1.15265                         | .18126  | .11314  | .00085  | -.00092 | -.00161 |
| .155     | 16.840 | .00000 | 35.16462   | 1.32454                         | .22041  | .05860  | .00073  | -.00236 | .00007  |
| .155     | 18.851 | .00000 | 35.35149   | 1.49525                         | .26074  | .00989  | .00027  | -.00124 | .00055  |
| .155     | 20.802 | .00000 | 35.41894   | 1.59666                         | .30406  | -.00278 | -.00007 | -.00144 | .00113  |
| .155     | 22.934 | .00000 | 35.55195   | 1.66981                         | .35680  | -.00330 | .00018  | -.00178 | -.00045 |
| .155     | 24.866 | .00000 | 35.60835   | 1.66045                         | .45068  | -.14341 | .00068  | -.00175 | .00085  |
| .155     | 26.935 | .00000 | 35.51619   | 1.62552                         | .52220  | -.40047 | -.00363 | .00153  | -.00245 |
| .156     | 28.956 | .00000 | 35.94178   | 1.61609                         | .58688  | -.58185 | -.00401 | .00028  | -.00056 |
| GRADIENT |        | .00000 | .01057     | .09782                          | -.00184 | -.02266 | .00024  | -.00011 | -.00096 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2TS2H15.1F10

(RJF009) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -23.000

| RUN NO. |          | 9/ 0   | RN/L =   | .00     | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |
|---------|----------|--------|----------|---------|---------------------------------|---------|---------|---------|---------|
| MACH    | ALPHA    | BETA   | Q(PSF)   | CL      | CD                              | CLM     | CLN     | CSL     | CY      |
| .155    | -2.391   | .00000 | 35.21377 | -.29579 | .10063                          | .68574  | .00208  | -.00054 | -.00973 |
| .155    | .120     | .00000 | 35.23126 | -.06114 | .07755                          | .62952  | .00207  | .00001  | -.00753 |
| .154    | 2.206    | .00000 | 35.16954 | .14997  | .06709                          | .58014  | .00197  | -.00046 | -.00904 |
| .154    | 4.227    | .00000 | 35.15555 | .33829  | .06634                          | .54408  | .00145  | -.00013 | -.00733 |
| .155    | 6.265    | .00000 | 35.21088 | .53810  | .07141                          | .50744  | .00149  | .00013  | -.00439 |
| .154    | 8.280    | .00000 | 35.17782 | .73695  | .08417                          | .47599  | .00154  | -.00058 | -.00542 |
| .154    | 10.274   | .00000 | 35.15571 | .91305  | .10319                          | .44911  | .00134  | -.00002 | -.00729 |
| .154    | 12.361   | .00000 | 35.17360 | 1.08456 | .12783                          | .41987  | .00097  | -.00201 | -.00610 |
| .155    | 14.354   | .00000 | 35.24098 | 1.25630 | .15561                          | .37432  | .00066  | -.00227 | -.00411 |
| .155    | 16.459   | .00000 | 35.23149 | 1.42465 | .18775                          | .32818  | .00031  | -.00232 | -.00278 |
| .155    | 18.465   | .00000 | 35.27884 | 1.54431 | .22502                          | .28846  | .00059  | -.00092 | -.00235 |
| .155    | 20.439   | .00000 | 35.30922 | 1.61573 | .26898                          | .27035  | .00055  | -.00179 | -.00310 |
| .155    | 22.416   | .00000 | 35.38010 | 1.61241 | .36457                          | .11464  | .00146  | -.00328 | -.00533 |
| .155    | 24.448   | .00000 | 35.41903 | 1.57111 | .43404                          | -.14804 | -.00581 | .00295  | -.00746 |
| .155    | 26.496   | .00000 | 35.42561 | 1.57279 | .49725                          | -.31925 | -.00252 | .00011  | -.00407 |
|         | GRADIENT | .00000 | -.01049  | .09629  | -.00527                         | -.02166 | -.00009 | .00004  | .00027  |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) KIV9.1.2TS2HI5.1F10

(RJF010) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000

| RUN NO. | 10/ 0    | RN/L = | .00      | GRADIENT INTERVAL = | -5.00/  | 5.00    |         |         |         |
|---------|----------|--------|----------|---------------------|---------|---------|---------|---------|---------|
| MACH    | ALPHAW   | BETA   | Q(PSF)   | CL                  | CD      | CLM     | CLN     | CSL     | CY      |
| .155    | -2.755   | .00000 | 35.29384 | -.21612             | .08764  | .26450  | .00186  | -.00050 | -.00762 |
| .155    | .118     | .00000 | 35.35066 | .06294              | .06290  | .20272  | .00235  | -.00138 | -.00968 |
| .155    | 2.227    | .00000 | 35.30663 | .27213              | .05544  | .15206  | .00235  | -.00068 | -.01184 |
| .154    | 4.218    | .00000 | 34.98757 | .45013              | .05831  | .11675  | .00108  | -.00009 | -.00518 |
| .154    | 6.233    | .00000 | 35.09117 | .65897              | .06591  | .07371  | .00136  | .00017  | -.00530 |
| .154    | 8.228    | .00000 | 35.11325 | .84573              | .08257  | .03603  | .00124  | -.00056 | -.00337 |
| .154    | 10.331   | .00000 | 35.15679 | 1.04145             | .10572  | -.00092 | .00117  | -.00124 | -.00650 |
| .155    | 12.329   | .00000 | 35.32218 | 1.21010             | .13250  | -.04000 | .00124  | -.00162 | -.00584 |
| .154    | 14.415   | .00000 | 35.13224 | 1.39452             | .16567  | -.09520 | .00100  | -.00185 | -.00593 |
| .155    | 16.395   | .00000 | 35.28827 | 1.55161             | .19934  | -.12744 | .00046  | -.00188 | -.00268 |
| .155    | 18.498   | .00000 | 35.28068 | 1.66726             | .24175  | -.12992 | .00045  | -.00112 | -.00247 |
| .155    | 20.466   | .00000 | 35.56719 | 1.71929             | .29752  | -.14343 | .00171  | -.00420 | .00026  |
| .155    | 22.514   | .00000 | 35.38717 | 1.72238             | .38895  | -.28681 | .00011  | -.00126 | -.00190 |
| .155    | 24.493   | .00000 | 35.25023 | 1.67889             | .46043  | -.58052 | -.00565 | .00212  | -.00467 |
| .155    | 26.442   | .00000 | 35.28853 | 1.69342             | .52563  | -.73351 | -.00358 | .00042  | -.00212 |
|         | GRADIENT | .00000 | -.03858  | .09599              | -.00434 | -.02149 | -.00009 | .00007  | .00016  |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) KIV9.1.2TS2H15.1F10

(RJF011) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = .000 ELEVTR = .000

RUN NO. 11/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .154 | -2.716   | .00000 | 34.97808 | -.16318 | .08230  | .07985  | .00190  | -.00143 | -.00847 |
| .154 | .184     | .00000 | 34.74818 | .10377  | .06138  | .02183  | .00170  | -.00062 | -.00814 |
| .154 | 2.199    | .00000 | 34.75666 | .30385  | .05569  | -.03017 | .00094  | -.00008 | -.00539 |
| .154 | 4.213    | .00000 | 34.85731 | .50632  | .05868  | -.07491 | .00120  | -.00021 | -.00678 |
| .154 | 6.293    | .00000 | 34.85300 | .70999  | .06977  | -.11862 | .00071  | -.00027 | -.00298 |
| .155 | 8.297    | .00000 | 35.19827 | .90167  | .08673  | -.16552 | .00109  | -.00052 | -.00384 |
| .155 | 10.314   | .00000 | 35.36583 | 1.08343 | .11350  | -.20447 | .00074  | -.00113 | -.00397 |
| .154 | 12.340   | .00000 | 35.09292 | 1.26906 | .14390  | -.24863 | .00097  | -.00209 | -.00562 |
| .154 | 14.415   | .00000 | 35.06998 | 1.44077 | .17798  | -.29415 | .00059  | -.00185 | -.00457 |
| .155 | 16.439   | .00000 | 35.19813 | 1.59876 | .21448  | -.31150 | .00040  | -.00264 | -.00257 |
| .155 | 18.448   | .00000 | 35.30526 | 1.70087 | .25527  | -.30039 | .00026  | -.00170 | -.00345 |
| .155 | 20.478   | .00000 | 35.57593 | 1.76103 | .30945  | -.30424 | .00076  | -.00234 | -.00303 |
| .156 | 22.522   | .00000 | 35.80846 | 1.76499 | .41097  | -.46618 | .00046  | -.00136 | -.00344 |
| .156 | 24.476   | .00000 | 35.76333 | 1.71981 | .48463  | -.74608 | -.00430 | .00245  | -.00283 |
| .156 | 26.622   | .00000 | 35.95786 | 1.72627 | .55658  | -.88965 | -.00249 | .00008  | -.00250 |
|      | GRADIENT | .00000 | -.01842  | .09665  | -.00351 | -.02255 | -.00013 | .00019  | .00034  |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2TS2H15.1F10G5.3.5

(RJF012) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000

| RUN NO. 12/ 0 |        | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |         |         |
|---------------|--------|------------|---------------------------------|---------|---------|---------|---------|---------|---------|
| MACH          | ALPHAW | BETA       | Q(PSF)                          | CL      | CD      | CLM     | CLN     | CSL     | CY      |
| .154          | -1.845 | .00000     | 35.07877                        | -.06621 | .10305  | .14691  | .00079  | .00008  | -.00250 |
| .154          | .219   | .00000     | 35.13663                        | .12611  | .08766  | .10113  | .00133  | .00103  | -.00555 |
| .154          | 2.184  | .00000     | 35.02641                        | .31494  | .08045  | .05305  | .00189  | -.00060 | -.00866 |
| .154          | 4.289  | .00000     | 34.99382                        | .50954  | .08211  | .00806  | .00112  | -.00087 | -.00881 |
| .155          | 6.318  | .00000     | 35.21436                        | .70142  | .09091  | -.03211 | .00088  | -.00077 | -.00760 |
| .155          | 8.322  | .00000     | 35.30102                        | .88133  | .10748  | -.07422 | .00060  | -.00017 | -.00424 |
| .155          | 10.423 | .00000     | 35.31405                        | 1.08309 | .13280  | -.11669 | .00069  | -.00087 | -.00631 |
| .155          | 12.328 | .00000     | 35.16367                        | 1.25646 | .15836  | -.16255 | .00087  | -.00054 | -.00697 |
| .155          | 14.450 | .00000     | 35.19702                        | 1.44539 | .19094  | -.21902 | .00035  | -.00203 | -.00441 |
| .155          | 16.428 | .00000     | 35.23394                        | 1.58000 | .22653  | -.23493 | .00006  | -.00306 | -.00564 |
| .155          | 18.487 | .00000     | 35.47135                        | 1.68779 | .26781  | -.22799 | .00016  | -.00097 | -.00574 |
| .156          | 20.463 | .00000     | 35.61223                        | 1.72280 | .33457  | -.26384 | .00241  | -.00592 | .00077  |
| .155          | 22.554 | .00000     | 35.31363                        | 1.71610 | .42300  | -.41903 | .00019  | -.00030 | -.00411 |
| .155          | 24.495 | .00000     | 35.35497                        | 1.66458 | .49143  | -.71632 | -.00496 | .00201  | -.00550 |
| .157          | 26.305 | .00000     | 36.27971                        | 1.68543 | .55166  | -.82410 | -.00036 | -.00131 | -.00488 |
| GRADIENT      |        | .00000     | -.01782                         | .09407  | -.00343 | -.02281 | .00007  | -.00022 | -.00108 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2TS2H15.1F20

(RJF013) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090

| RUN NO. 13/ 0 |          | RN/L = .00 |          | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |         |
|---------------|----------|------------|----------|---------------------------------|---------|---------|---------|---------|---------|
| MACH          | ALPHA    | BETA       | Q(PSF)   | CL                              | CD      | CLM     | CLN     | CSL     | CY      |
| .155          | -1.832   | .00000     | 35.23687 | -.02937                         | .07407  | -.10205 | .00160  | -.00048 | -.00801 |
| .155          | .153     | .00000     | 35.32032 | .13694                          | .06278  | -.09418 | .00159  | .00046  | -.00682 |
| .155          | 2.239    | .00000     | 35.33803 | .33764                          | .05855  | -.08599 | .00187  | -.00046 | -.00924 |
| .155          | 4.223    | .00000     | 35.51652 | .50534                          | .06044  | -.07476 | .00119  | -.00055 | -.00646 |
| .155          | 5.323    | .00000     | 35.23035 | .60527                          | .06423  | -.06849 | .00114  | -.00001 | -.00722 |
| .155          | 6.342    | .00000     | 35.14596 | .70251                          | .06951  | -.06111 | .00222  | .00053  | -.00891 |
| .155          | 7.386    | .00000     | 35.14927 | .79183                          | .07765  | -.05525 | .00154  | -.00055 | -.00530 |
| .155          | 8.368    | .00000     | 35.21394 | .88490                          | .08535  | -.04626 | .00221  | -.00078 | -.00839 |
| .154          | 9.399    | .00000     | 35.07469 | .97144                          | .09650  | -.03806 | .00202  | -.00004 | -.00925 |
| .154          | 10.353   | .00000     | 35.00395 | 1.04334                         | .10825  | -.03 83 | .00148  | -.00113 | -.00574 |
| .154          | 11.316   | .00000     | 35.07582 | 1.12794                         | .12024  | -.02348 | .00173  | -.00079 | -.00682 |
| .154          | 12.399   | .00000     | 35.05212 | 1.21323                         | .13395  | -.01388 | .00151  | -.00092 | -.00604 |
| .155          | 13.402   | .00000     | 35.18841 | 1.30693                         | .14820  | -.01366 | .00182  | -.00026 | -.01001 |
| .155          | 14.368   | .00000     | 35.25142 | 1.37762                         | .16351  | -.01168 | .00164  | -.00044 | -.00841 |
| .155          | 15.403   | .00000     | 35.16449 | 1.45550                         | .17908  | -.01082 | .00159  | -.00070 | -.00891 |
| .155          | 16.477   | .00000     | 35.23507 | 1.52119                         | .19778  | -.00387 | .00110  | -.00094 | -.00633 |
| .155          | 17.460   | .00000     | 35.27126 | 1.57825                         | .21482  | .00401  | .00107  | -.00125 | -.00691 |
| .155          | 18.440   | .00000     | 35.28095 | 1.62679                         | .23332  | .01445  | .00101  | -.00056 | -.00930 |
| .155          | 19.511   | .00000     | 35.40025 | 1.67248                         | .25628  | .03002  | .00116  | -.00094 | -.00798 |
| .155          | 20.434   | .00000     | 35.45917 | 1.67817                         | .28472  | .03091  | .00199  | -.00213 | -.00417 |
| .155          | 21.423   | .00000     | 35.39590 | 1.66469                         | .33378  | .00630  | .00218  | -.00255 | -.00228 |
| .155          | 22.477   | .00000     | 35.44146 | 1.65226                         | .37039  | -.00466 | .00109  | -.00130 | -.00293 |
| .155          | 23.566   | .00000     | 35.37940 | 1.61770                         | .39988  | -.02985 | .00091  | -.00101 | -.00565 |
| .155          | 24.448   | .00000     | 35.44031 | 1.57235                         | .42058  | -.06684 | -.00490 | .00487  | -.01395 |
| .156          | 25.570   | .00000     | 35.58993 | 1.52012                         | .44260  | -.10478 | -.00446 | .00264  | -.00900 |
| .155          | 26.387   | .00000     | 35.55995 | 1.52973                         | .46541  | -.11160 | -.00232 | .00039  | -.00705 |
|               | GRADIENT | .00000     | .01266   | .08910                          | -.00223 | .00445  | -.00005 | -.00006 | .00011  |

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(CA-8) K1V9.1.2TS2H15.1F20

(RJF014) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090

|      | RUN NO.  | 14/ 0  | RN/L =   | .00     | GRADIENT INTERVAL = | -5.00/  | 5.00    |         |         |
|------|----------|--------|----------|---------|---------------------|---------|---------|---------|---------|
| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD                  | CLM     | CLN     | CSL     | CY      |
| .154 | -1.882   | .00000 | 35.01708 | .22491  | .07582              | -.17548 | .00247  | .00204  | -.00509 |
| .155 | .302     | .00000 | 35.16626 | .44557  | .07120              | -.18109 | .00247  | .00057  | -.00565 |
| .155 | 2.248    | .00000 | 35.15318 | .62877  | .07596              | -.18085 | .00235  | -.00018 | -.00626 |
| .155 | 4.330    | .00000 | 35.19290 | .82268  | .08648              | -.16928 | .00228  | .00104  | -.00784 |
| .155 | 5.287    | .00000 | 35.24613 | .89656  | .09469              | -.16547 | .00152  | -.00009 | -.00337 |
| .155 | 6.336    | .00000 | 35.30818 | .99584  | .10288              | -.15756 | .00250  | -.00059 | -.00851 |
| .155 | 7.383    | .00000 | 35.27775 | 1.09015 | .11367              | -.14931 | .00266  | -.00087 | -.00988 |
| .155 | 8.302    | .00000 | 35.25116 | 1.16074 | .12412              | -.14014 | .00256  | -.00062 | -.00920 |
| .155 | 9.391    | .00000 | 35.19391 | 1.25437 | .13874              | -.12971 | .00248  | -.00122 | -.00866 |
| .155 | 10.379   | .00000 | 35.19246 | 1.33375 | .15181              | -.12373 | .00300  | -.00115 | -.01098 |
| .155 | 11.380   | .00000 | 35.18871 | 1.42054 | .16560              | -.11727 | .00248  | -.00084 | -.00791 |
| .155 | 12.407   | .00000 | 35.19657 | 1.50366 | .18100              | -.11263 | .00226  | -.00135 | -.00811 |
| .155 | 13.436   | .00000 | 35.22866 | 1.57916 | .19913              | -.11113 | .00243  | -.00059 | -.00887 |
| .155 | 14.509   | .00000 | 35.18895 | 1.65948 | .21595              | -.10586 | .00211  | -.00074 | -.00793 |
| .154 | 15.429   | .00000 | 35.07056 | 1.71879 | .23102              | -.09909 | .00172  | -.00070 | -.00719 |
| .154 | 16.457   | .00000 | 35.10612 | 1.76802 | .25096              | -.08563 | .00197  | -.00105 | -.00746 |
| .155 | 17.540   | .00000 | 35.26916 | 1.81710 | .26972              | -.07159 | .00148  | -.00052 | -.00743 |
| .155 | 18.445   | .00000 | 35.31743 | 1.84776 | .28848              | -.05827 | .00199  | -.00110 | -.00895 |
| .155 | 19.557   | .00000 | 35.23474 | 1.87865 | .31416              | -.04024 | .00193  | -.00107 | -.00421 |
| .155 | 20.434   | .00000 | 35.38454 | 1.87884 | .33533              | -.02795 | .00256  | -.00151 | -.00593 |
| .155 | 21.454   | .00000 | 35.42238 | 1.80615 | .39117              | -.06351 | .00192  | -.00240 | -.00105 |
| .155 | 22.485   | .00000 | 35.42435 | 1.76495 | .42487              | -.08394 | .00200  | -.00287 | -.00307 |
| .156 | 23.506   | .00000 | 35.72020 | 1.69703 | .45219              | -.12547 | -.00140 | .00216  | -.00963 |
| .156 | 24.526   | .00000 | 35.72820 | 1.65329 | .47458              | -.15422 | -.00438 | .00296  | -.01035 |
| .156 | 25.515   | .00000 | 35.77848 | 1.62936 | .49733              | -.17361 | -.00298 | .00048  | -.00563 |
| .156 | 26.418   | .00000 | 35.98495 | 1.62860 | .51967              | -.17019 | -.00065 | -.00020 | -.00221 |
|      | GRADIENT | .00000 | .02530   | .09606  | .00176              | .00090  | -.00003 | -.00018 | -.00043 |

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CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V8.1.2TS2H15.1F20

(RJF015) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.6000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -6.000 ELEVTR = .000

| RUN NO. 15/ 0 |          | RN/L = .00 |          | GRADIENT INTERVAL * -5.00/ 5.00 |        |         |         |         |         |
|---------------|----------|------------|----------|---------------------------------|--------|---------|---------|---------|---------|
| MACH          | ALPHA    | BETA       | Q(PSE)   | CL                              | CD     | CLM     | CLN     | CSL     | CY      |
| .154          | -1.806   | .00000     | 35.05488 | .09051                          | .08248 | .31428  | .00172  | .00094  | -.00849 |
| .154          | .212     | .00000     | 34.99347 | .31710                          | .07584 | .25857  | .00245  | .00047  | -.00876 |
| .154          | 2.203    | .00000     | 35.00998 | .51220                          | .07754 | .21060  | .00221  | .00020  | -.01038 |
| .154          | 4.288    | .00000     | 35.02661 | .73572                          | .06532 | .16178  | .00216  | -.00036 | -.01233 |
| .154          | 6.386    | .00000     | 35.10770 | .93123                          | .10166 | .11690  | .00169  | -.00067 | -.00811 |
| .155          | 8.354    | .00000     | 35.14361 | 1.11773                         | .12226 | .09007  | .00186  | -.00065 | -.01057 |
| .155          | 10.368   | .00000     | 35.17307 | 1.29546                         | .14920 | .04120  | .00185  | -.00019 | -.00772 |
| .155          | 12.415   | .00000     | 35.27031 | 1.47392                         | .18041 | -.00839 | .00160  | -.00113 | -.00689 |
| .155          | 14.427   | .00000     | 35.19960 | 1.65313                         | .21287 | -.04877 | .00182  | -.00112 | -.00561 |
| .155          | 16.475   | .00000     | 35.24492 | 1.76769                         | .25117 | -.08384 | .00064  | -.00155 | -.00565 |
| .155          | 18.466   | .00000     | 35.42942 | 1.86444                         | .29084 | -.08868 | .00079  | -.00222 | -.00780 |
| .155          | 20.486   | .00000     | 35.46470 | 1.87159                         | .34696 | -.07601 | .00166  | -.00374 | -.00241 |
| .155          | 22.477   | .00000     | 35.52569 | 1.81196                         | .44121 | -.27556 | .00093  | -.00252 | -.00485 |
| .155          | 24.435   | .00000     | 35.67605 | 1.74722                         | .50381 | -.57881 | -.00566 | .00044  | -.00723 |
| .155          | 26.311   | .00000     | 35.90629 | 1.75956                         | .55432 | -.66578 | -.00132 | -.00117 | -.00433 |
|               | GRADIENT | .00000     | -.00330  | -.10511                         | .00052 | -.02493 | .00005  | -.00021 | -.00065 |

REPRODUCIBILITY OF THE  
 ORIGINAL PAGE IS POOR



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CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2TS2H15.1F20

(RJF016) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000

RUN NO. 16/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .154 | -1.844   | .00000 | 34.87353 | .10677  | .07956 | .22885  | .00231  | .00085  | -.00822 |
| .155 | .156     | .00000 | 35.19199 | .32016  | .07462 | .17142  | .00196  | .00036  | -.00768 |
| .155 | 2.226    | .00000 | 35.20231 | .54205  | .07543 | .11709  | .00254  | -.00074 | -.01132 |
| .155 | 4.297    | .00000 | 35.19203 | .74997  | .08494 | .07433  | .00194  | .00005  | -.01093 |
| .155 | 6.337    | .00000 | 35.31960 | .94775  | .10078 | .02386  | .00209  | -.00069 | -.01195 |
| .155 | 8.361    | .00000 | 35.25959 | 1.13449 | .12247 | -.01066 | .00199  | -.00093 | -.01040 |
| .155 | 10.468   | .00000 | 35.33744 | 1.32335 | .15094 | -.05237 | .00199  | -.00150 | -.00980 |
| .155 | 12.404   | .00000 | 35.34773 | 1.49940 | .18003 | -.10175 | .00163  | -.00029 | -.00844 |
| .155 | 14.486   | .00000 | 35.22678 | 1.67352 | .21829 | -.15213 | .00078  | -.00084 | -.00536 |
| .155 | 16.448   | .00000 | 35.41228 | 1.78843 | .25403 | -.17776 | .00038  | -.00176 | -.00447 |
| .155 | 18.489   | .00000 | 35.45613 | 1.87941 | .29543 | -.17270 | .00029  | -.00135 | -.00539 |
| .156 | 20.460   | .00000 | 35.62834 | 1.90535 | .34396 | -.13395 | .00069  | -.00163 | -.00363 |
| .156 | 22.525   | .00000 | 35.68560 | 1.82242 | .44513 | -.36120 | .00070  | -.00295 | -.00177 |
| .156 | 24.530   | .00000 | 35.71759 | 1.76769 | .51469 | -.65384 | -.00536 | .00081  | -.00595 |
| .156 | 26.288   | .00000 | 35.92847 | 1.77530 | .57352 | -.76858 | -.00055 | -.00174 | -.00439 |
|      | GRADIENT | .00000 | .04680   | .10498  | .00084 | -.02526 | -.00003 | -.00017 | -.00058 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2TS2H15.1F20

(RJF017) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000

| RUN NO. 17/ 0 |        | RN/L = .00 |          | GRADIENT INTERVAL = -5.00/ 5.00 |        |         |         |         |         |
|---------------|--------|------------|----------|---------------------------------|--------|---------|---------|---------|---------|
| MACH          | ALPHA  | BETA       | Q(PSF)   | CL                              | CD     | CLM     | CLN     | CSL     | CY      |
| .155          | -1.882 | .00000     | 35.21898 | .13064                          | .07892 | .13989  | .00214  | .00047  | -.00804 |
| .155          | .199   | .00000     | 35.19085 | .35207                          | .07321 | .08116  | .00233  | -.00025 | -.00958 |
| .155          | 2.258  | .00000     | 35.17278 | .56790                          | .07610 | .02539  | .00184  | .00069  | -.00757 |
| .155          | 4.302  | .00000     | 35.16494 | .77735                          | .08724 | -.01809 | .00195  | -.00001 | -.01069 |
| .155          | 5.361  | .00000     | 35.28815 | .88339                          | .09322 | -.04261 | .00172  | .00005  | -.01000 |
| .155          | 6.348  | .00000     | 35.28711 | .97865                          | .10174 | -.06678 | .00179  | -.00028 | -.00952 |
| .155          | 7.348  | .00000     | 35.32743 | 1.06256                         | .11354 | -.08521 | .00168  | -.00040 | -.00932 |
| .155          | 8.367  | .00000     | 35.26120 | 1.16712                         | .12482 | -.10774 | .00188  | -.00115 | -.01022 |
| .155          | 9.433  | .00000     | 35.34006 | 1.24813                         | .14025 | -.12376 | .00178  | -.00194 | -.00915 |
| .155          | 10.474 | .00000     | 35.34342 | 1.34558                         | .15430 | -.14990 | .00144  | -.00128 | -.00650 |
| .155          | 11.420 | .00000     | 35.24201 | 1.42403                         | .17042 | -.17154 | .00194  | -.00036 | -.00781 |
| .155          | 12.486 | .00000     | 35.19804 | 1.52648                         | .18758 | -.20107 | .00118  | -.00227 | -.00789 |
| .155          | 13.415 | .00000     | 35.20824 | 1.60245                         | .20369 | -.22730 | .00115  | -.00165 | -.00625 |
| .155          | 14.459 | .00000     | 35.21248 | 1.69864                         | .22129 | -.25603 | .00078  | -.00137 | -.00534 |
| .155          | 15.442 | .00000     | 35.23967 | 1.75232                         | .24177 | -.26769 | .00051  | -.00124 | -.00477 |
| .155          | 16.580 | .00000     | 35.26100 | 1.81994                         | .26265 | -.27625 | .00048  | -.00201 | -.00539 |
| .155          | 17.589 | .00000     | 35.30128 | 1.87220                         | .28216 | -.27345 | .00031  | -.00075 | -.00443 |
| .155          | 18.561 | .00000     | 35.37767 | 1.90176                         | .30572 | -.25946 | .00015  | -.00142 | -.00630 |
| .155          | 19.509 | .00000     | 35.36629 | 1.92597                         | .32588 | -.23430 | .00080  | -.00172 | -.00387 |
| .156          | 20.514 | .00000     | 35.60863 | 1.91241                         | .35531 | -.22619 | .00092  | -.00340 | -.00203 |
| .156          | 21.599 | .00000     | 35.63687 | 1.85862                         | .41676 | -.33756 | .00055  | -.00268 | -.00280 |
| .155          | 22.527 | .00000     | 35.43272 | 1.85544                         | .45403 | -.42983 | .00083  | -.00228 | -.00140 |
| .156          | 23.523 | .00000     | 35.57901 | 1.81232                         | .49180 | -.59909 | -.00329 | .00101  | -.00622 |
| .155          | 24.525 | .00000     | 35.56110 | 1.78642                         | .52670 | -.74183 | -.00665 | .00154  | -.00565 |
| .156          | 25.485 | .00000     | 35.75804 | 1.78940                         | .55938 | -.80841 | -.00389 | -.00046 | -.00652 |
| .156          | 26.287 | .00000     | 35.90244 | 1.79076                         | .58385 | -.84209 | -.00029 | -.00123 | -.00610 |
| GRADIENT      |        | .00000     | -.00875  | .10461                          | .00134 | -.02571 | -.00005 | -.00002 | -.00029 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) KIV9.1.2TS2H15.1F20G5.3.5

(RJF018) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000

RUN NO. 18/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHA  | BETA    | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|----------|--------|---------|----------|---------|--------|---------|---------|---------|---------|
| .155     | -1.873 | .00000  | 35.21840 | .14864  | .10524 | .12451  | .00175  | .00250  | -.00296 |
| .155     | .172   | .00000  | 35.35029 | .35565  | .09810 | .07104  | .00143  | -.00047 | -.00608 |
| .155     | 2.311  | -.00000 | 35.18533 | .58922  | .09878 | .01218  | .00123  | .00040  | -.00558 |
| .155     | 4.376  | .00000  | 35.29476 | .79112  | .10772 | -.03483 | .00121  | .00041  | -.00581 |
| .155     | 6.348  | .00000  | 35.30817 | .97691  | .12314 | -.07889 | .00159  | .00038  | -.00514 |
| .155     | 8.425  | .00000  | 35.16795 | 1.16438 | .14599 | -.11942 | .00161  | -.00017 | -.00679 |
| .154     | 10.334 | .00000  | 35.06043 | 1.33979 | .17072 | -.16269 | .00151  | -.00045 | -.00535 |
| .154     | 12.433 | .00000  | 35.12760 | 1.51797 | .20374 | -.21884 | .00066  | -.00234 | -.00355 |
| .155     | 14.567 | .00000  | 35.15047 | 1.69279 | .24122 | -.27642 | .00018  | -.00213 | -.00148 |
| .155     | 16.481 | .00000  | 35.18729 | 1.80508 | .27605 | -.29249 | .00003  | -.00158 | -.00226 |
| .155     | 18.454 | .00000  | 35.31578 | 1.88794 | .31735 | -.27036 | -.00029 | -.00143 | -.00125 |
| .155     | 20.516 | .00000  | 35.55345 | 1.87985 | .37954 | -.26102 | .00139  | -.00563 | .00124  |
| .155     | 22.546 | .00000  | 35.55320 | 1.82486 | .46952 | -.45726 | .00118  | -.00248 | -.00355 |
| .156     | 24.571 | .00000  | 35.94532 | 1.75949 | .54156 | -.76984 | -.00394 | .00009  | -.00536 |
| .157     | 26.275 | .00000  | 36.04260 | 1.77365 | .59582 | -.83750 | -.00041 | -.00101 | .00005  |
| GRADIENT |        | .00000  | .00284   | .10348  | .00039 | -.02571 | -.00009 | -.00026 | -.00024 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2TS2H15.1F20

(RJF019) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = 17.000

| RUN NO. |          | 19/ 0  | RN/L =   | .00     | GRADIENT INTERVAL = -5.00/ 5.00 |          |         |         |         |
|---------|----------|--------|----------|---------|---------------------------------|----------|---------|---------|---------|
| MACH    | ALPHAW   | BETA   | Q(PSF)   | CL      | CD                              | CLM      | CLN     | CSL     | CY      |
| .155    | -2.827   | .00000 | 35.23830 | .10797  | .08755                          | -.15563  | .00181  | .00010  | -.00802 |
| .155    | .254     | .00000 | 35.05926 | .44925  | .07788                          | -.25954  | .00162  | .00061  | -.00670 |
| .155    | 2.288    | .00000 | 35.19027 | .65567  | .08313                          | -.31750  | .00131  | -.00113 | -.00742 |
| .155    | 4.334    | .00000 | 35.19236 | .87790  | .09459                          | -.37383  | .00144  | -.00058 | -.00635 |
| .155    | 6.328    | .00000 | 35.21674 | 1.07029 | .11345                          | -.41781  | .00119  | -.00094 | -.00175 |
| .155    | 8.367    | .00000 | 35.12177 | 1.24718 | .13856                          | -.45479  | .00126  | -.00160 | -.00453 |
| .155    | 10.397   | .00000 | 35.18626 | 1.42665 | .16902                          | -.49403  | .00164  | -.00196 | -.00504 |
| .155    | 12.420   | .00000 | 35.21506 | 1.61793 | .20328                          | -.55007  | .00139  | -.00109 | -.00530 |
| .155    | 14.459   | .00000 | 35.22314 | 1.78283 | .24135                          | -.59708  | .00101  | -.00152 | -.00438 |
| .155    | 16.485   | .00000 | 35.37013 | 1.89046 | .28129                          | -.59712  | .00081  | -.00158 | -.00493 |
| .155    | 18.489   | .00000 | 35.18959 | 1.96658 | .32274                          | -.53903  | .00061  | -.00144 | -.00473 |
| .156    | 20.505   | .00000 | 35.51636 | 1.95159 | .37991                          | -.48723  | .00164  | -.00423 | -.00136 |
| .156    | 22.543   | .00000 | 35.73210 | 1.89973 | .47739                          | -.69404  | .00105  | -.00213 | -.00283 |
| .156    | 24.503   | .00000 | 35.94494 | 1.84637 | .55241                          | -1.00988 | -.00646 | .00144  | -.00393 |
| .157    | 26.379   | .00000 | 36.03200 | 1.85597 | .61519                          | -1.08406 | -.00061 | -.00076 | -.00325 |
|         | GRADIENT | .00000 | -.00279  | .10714  | .00090                          | -.03047  | -.00006 | -.00015 | .00019  |

(CA-8) K1V9.1.2TS2H15.1F20

(RJF020) ( 18 JUN 76 )

## REFERENCE DATA

SREF = .5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = 10.000

RUN NO. 20/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -2.786   | .00000 | 35.41414 | .07873  | .08520 | .01904  | .00188  | -.00010 | -.00845 |
| .155 | .216     | .00000 | 35.12316 | .39393  | .07443 | -.07672 | .00186  | .00021  | -.00736 |
| .155 | 2.253    | .00000 | 35.16668 | .61569  | .07708 | -.13923 | .00164  | .00044  | -.00617 |
| .155 | 4.288    | .00000 | 35.15449 | .82894  | .08773 | -.19092 | .00157  | .00022  | -.00758 |
| .155 | 6.367    | .00000 | 35.15811 | 1.01893 | .10694 | -.23908 | .00156  | -.00080 | -.00623 |
| .155 | 8.420    | .00000 | 35.24397 | 1.21131 | .13030 | -.28080 | .00136  | -.00092 | -.00455 |
| .155 | 10.401   | .00000 | 35.13003 | 1.38482 | .15966 | -.32061 | .00159  | -.00110 | -.00615 |
| .155 | 12.455   | .00000 | 35.19381 | 1.56860 | .19293 | -.37361 | .00104  | -.00110 | -.00468 |
| .155 | 14.479   | .00000 | 35.21464 | 1.73896 | .22967 | -.42329 | .00117  | -.00183 | -.00479 |
| .155 | 16.506   | .00000 | 35.19580 | 1.85303 | .26935 | -.43641 | .00060  | -.00177 | -.00433 |
| .155 | 18.565   | .00000 | 35.33015 | 1.93358 | .31304 | -.39866 | .00036  | -.00105 | -.00477 |
| .155 | 20.537   | .00000 | 35.47320 | 1.93003 | .36770 | -.35856 | .00177  | -.00435 | -.00051 |
| .156 | 22.521   | .00000 | 35.56202 | 1.86840 | .46249 | -.57533 | -.00005 | -.00114 | -.00288 |
| .155 | 24.447   | .00000 | 35.45060 | 1.81598 | .53513 | -.87082 | -.00556 | .00089  | -.00563 |
| .155 | 26.420   | .00000 | 35.39134 | 1.82331 | .60001 | -.96899 | -.00096 | -.00103 | -.00389 |
|      | GRADIENT | .00000 | -.03445  | .10526  | .00024 | -.02989 | -.00005 | .00005  | .00018  |

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CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2T52H15.1F20

(RJF021) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = -10.000

RUN NO. 21/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHA  | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|----------|--------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155     | -2.772 | .00000 | 35.25427 | -.04561 | .09231  | .48638  | .00112  | -.00059 | -.00715 |
| .155     | -1.174 | .00000 | 35.20541 | .26926  | .07659  | .41500  | .00194  | -.00044 | -.00792 |
| .155     | 2.264  | .00000 | 35.21548 | .49270  | .07628  | .36119  | .00169  | .00030  | -.00650 |
| .155     | 4.310  | .00000 | 35.15563 | .69280  | .08394  | .32085  | .00138  | .00008  | -.00590 |
| .155     | 6.320  | .00000 | 35.18254 | .88865  | .09730  | .27510  | .00090  | -.00005 | -.00322 |
| .155     | 8.356  | .00000 | 35.16173 | 1.08173 | .11795  | .23503  | .00132  | -.00135 | -.00594 |
| .154     | 10.366 | .00000 | 35.04495 | 1.26296 | .14153  | .19323  | .00159  | -.00093 | -.00620 |
| .155     | 12.394 | .00000 | 35.25299 | 1.44556 | .17143  | .14598  | .00091  | -.00078 | -.00463 |
| .155     | 14.433 | .00000 | 35.36156 | 1.60256 | .20647  | .09617  | .00050  | -.00199 | -.00387 |
| .155     | 16.440 | .00000 | 35.32653 | 1.73150 | .24038  | .06067  | .00023  | -.00105 | -.00197 |
| .155     | 18.494 | .00000 | 35.20639 | 1.82013 | .28070  | .04254  | .00046  | -.00142 | -.00481 |
| .156     | 20.448 | .00000 | 35.55040 | 1.84345 | .33206  | .04389  | .00126  | -.00364 | -.00197 |
| .156     | 22.529 | .00000 | 35.63815 | 1.78031 | .42971  | -.16355 | .00191  | -.00353 | -.00106 |
| .156     | 24.487 | .00000 | 35.70301 | 1.71168 | .49698  | -.44913 | -.00558 | .00094  | -.00746 |
| .157     | 26.254 | .00000 | 36.05641 | 1.72620 | .55399  | -.54954 | -.00184 | -.00058 | -.00224 |
| GRADIENT |        | .00000 | -.01224  | .10465  | -.00128 | -.02364 | .00003  | .00012  | .00020  |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) KIV9.1.2TS2H15.1F20

(RJF022) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = -23.000

| RUN NO. 22/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |         |         |
|---------------|----------|------------|---------------------------------|---------|---------|---------|---------|---------|---------|
| MACH          | ALPHA    | BETA       | Q(PSF)                          | CL      | CD      | CLM     | CLN     | CSL     | CY      |
| .155          | -2.739   | .00000     | 75.09860                        | -.10963 | .11005  | .76667  | .00224  | .00019  | -.00956 |
| .154          | .214     | .00000     | 34.99970                        | .22521  | .08895  | .67480  | .00245  | -.00091 | -.01071 |
| .155          | 2.258    | .00000     | 35.17534                        | .42289  | .08750  | .62676  | .00206  | .00046  | -.00716 |
| .155          | 4.297    | .00000     | 35.32448                        | .62689  | .09287  | .58374  | .00259  | -.00008 | -.00949 |
| .155          | 6.353    | .00000     | 35.17088                        | .82733  | .10484  | .54512  | .00197  | .00033  | -.00563 |
| .155          | 8.352    | .00000     | 35.17345                        | 1.00742 | .12258  | .51650  | .00176  | -.00079 | -.00743 |
| .155          | 10.355   | .00000     | 35.08657                        | 1.17979 | .14603  | .48705  | .00186  | -.00146 | -.00911 |
| .155          | 12.394   | .00000     | 35.17769                        | 1.35794 | .17265  | .44875  | .00175  | -.00061 | -.00731 |
| .155          | 14.454   | .00000     | 35.09356                        | 1.53327 | .20366  | .40673  | .00134  | -.00123 | -.00527 |
| .155          | 16.482   | .00000     | 35.29016                        | 1.64855 | .23578  | .37746  | .00065  | -.00210 | -.00700 |
| .155          | 18.474   | .00000     | 35.27327                        | 1.74821 | .27265  | .33954  | .00063  | -.00170 | -.00644 |
| .155          | 20.482   | .00000     | 35.39163                        | 1.76181 | .33036  | .28036  | .00251  | -.00505 | -.00075 |
| .157          | 22.472   | .00000     | 35.95244                        | 1.71807 | .41639  | .11114  | .00162  | -.00258 | -.00216 |
| .156          | 24.465   | .00000     | 35.88253                        | 1.64177 | .48127  | -.16963 | -.00554 | .00192  | -.00770 |
| .156          | 26.596   | .00000     | 35.91171                        | 1.65509 | .54800  | -.29072 | -.00059 | -.00109 | -.00496 |
|               | GRADIENT | .00000     | .03392                          | .10437  | -.00251 | -.02602 | .00003  | .00001  | .00015  |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2TS2H15.1F30G5.3.5

(RJF023) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = -23.000

| RUN NO. 23/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |        |         |         |         |         |
|---------------|----------|------------|---------------------------------|---------|--------|---------|---------|---------|---------|
| MACH          | ALPHAW   | BETA       | Q(PSF)                          | CL      | CD     | CLM     | CLN     | CSL     | CY      |
| .155          | -2.632   | .00000     | 35.39303                        | .42375  | .19951 | .61601  | .00224  | .00065  | -.01024 |
| .155          | .284     | .00000     | 35.11493                        | .74084  | .19841 | .53550  | .00236  | .00042  | -.00942 |
| .155          | 2.327    | .00000     | 35.27424                        | .94154  | .20726 | .48755  | .00209  | -.00136 | -.01172 |
| .155          | 4.410    | .00000     | 35.32577                        | 1.13206 | .22156 | .44202  | .00169  | -.00203 | -.01066 |
| .155          | 6.367    | .00000     | 35.03486                        | 1.32192 | .23934 | .40535  | .00246  | .00054  | -.01083 |
| .155          | 8.466    | .00000     | 35.21836                        | 1.49713 | .26574 | .36631  | .00276  | -.00115 | -.01306 |
| .155          | 10.466   | .00000     | 35.22497                        | 1.65222 | .29280 | .33419  | .00187  | -.00181 | -.01236 |
| .155          | 12.458   | .00000     | 35.18906                        | 1.81013 | .31874 | .30402  | .00178  | -.00261 | -.01225 |
| .155          | 14.469   | .00000     | 35.19246                        | 1.91030 | .34544 | .29575  | .00158  | -.00014 | -.00673 |
| .155          | 16.505   | .00000     | 35.39930                        | 1.99515 | .37316 | .29524  | .00096  | -.00085 | -.00858 |
| .156          | 18.525   | .00000     | 35.47583                        | 2.03412 | .41232 | .31731  | .00002  | .00292  | -.00664 |
| .156          | 20.522   | .00000     | 35.59509                        | 1.97650 | .44933 | .34071  | .00092  | .00162  | -.00863 |
| .156          | 22.535   | .00000     | 35.82815                        | 1.85483 | .53959 | -.00031 | .00228  | .00104  | -.00630 |
| .156          | 24.491   | .00000     | 35.74044                        | 1.78225 | .60369 | -.27205 | -.00480 | -.00074 | -.01012 |
| .156          | 26.818   | .00000     | 35.86269                        | 1.72801 | .67542 | -.29657 | -.00020 | -.00510 | .00177  |
|               | GRADIENT | .00000     | -.00528                         | .10073  | .00309 | -.02472 | -.00008 | -.00041 | -.00014 |



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(CA-8) K1V9.1.2TS2H15.1F30G5.3.5

(RJF024) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = -10.000

| RUN NO. 24/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |        |         |         |         |         |
|---------------|----------|------------|---------------------------------|---------|--------|---------|---------|---------|---------|
| MACH          | ALPHAW   | BETA       | Q(PSF)                          | CL      | CD     | CLM     | CLN     | CSL     | CY      |
| .155          | -1.780   | .00000     | 35.18215                        | .58526  | .18292 | .31133  | .00166  | .00016  | -.00784 |
| .155          | .283     | .00000     | 35.16858                        | .81615  | .18721 | .24914  | .00224  | -.00010 | -.00979 |
| .155          | 2.447    | .00000     | 35.17490                        | 1.01374 | .20142 | .20462  | .00116  | -.00152 | -.01016 |
| .155          | 4.399    | .00000     | 35.34089                        | 1.20541 | .21729 | .16043  | .00171  | -.00202 | -.01100 |
| .155          | 6.375    | .00000     | 35.17478                        | 1.38577 | .23947 | .12464  | .00226  | -.00022 | -.01034 |
| .155          | 8.576    | .00000     | 35.03186                        | 1.57623 | .26928 | .07654  | .00166  | -.00087 | -.00730 |
| .155          | 10.609   | .00000     | 35.16498                        | 1.74633 | .29857 | .03438  | .00185  | -.00229 | -.00961 |
| .155          | 12.617   | .00000     | 35.20048                        | 1.89354 | .32646 | -.00385 | .00142  | -.00244 | -.00941 |
| .155          | 14.526   | .00000     | 35.22236                        | 1.99622 | .35538 | -.02167 | .00099  | -.00225 | -.00872 |
| .155          | 16.573   | .00000     | 35.27042                        | 2.07358 | .39088 | -.02944 | .00047  | -.00109 | -.00604 |
| .155          | 18.557   | .00000     | 35.33887                        | 2.10810 | .42624 | .00658  | .00023  | .00154  | -.00635 |
| .156          | 20.561   | .00000     | 35.48249                        | 2.03562 | .46993 | .03692  | .00044  | .00279  | -.00682 |
| .156          | 22.541   | .00000     | 35.59342                        | 1.90900 | .55643 | -.22973 | .00236  | .00036  | -.00513 |
| .156          | 24.551   | .00000     | 35.79857                        | 1.83308 | .62402 | -.49455 | -.00352 | -.00126 | -.01069 |
| .157          | 26.536   | .00000     | 36.12899                        | 1.78696 | .68642 | -.52618 | -.00015 | -.00464 | .00215  |
|               | GRADIENT | .00000     | .02297                          | .09941  | .00566 | -.02402 | -.00005 | -.00039 | -.00048 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2TS2H15.1F3005.3.5

(RJF025) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = -10.000

| RUN NO. 25/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |        |         |         |         |         |
|---------------|----------|------------|---------------------------------|---------|--------|---------|---------|---------|---------|
| MACH          | ALPHA    | BETA       | Q(PSF)                          | CL      | CD     | CLM     | CLN     | CSL     | CY      |
| .155          | -1.807   | .00000     | 35.26944                        | .57947  | .18549 | .31101  | .00151  | -.00046 | -.00705 |
| .155          | .266     | .00000     | 35.15725                        | .81250  | .18959 | .24711  | .00161  | -.00037 | -.00692 |
| .155          | 2.430    | .00000     | 35.22689                        | 1.01353 | .20326 | .20139  | .00124  | -.00239 | -.01144 |
| .155          | 4.421    | .00000     | 35.19792                        | 1.20952 | .21999 | .16136  | .00191  | -.00167 | -.01089 |
| .155          | 6.546    | .00000     | 35.14184                        | 1.40619 | .24283 | .12287  | .00188  | -.00187 | -.00966 |
| .155          | 8.567    | .00000     | 35.19957                        | 1.57214 | .27115 | .07881  | .00170  | -.00150 | -.00847 |
| .155          | 10.449   | .00000     | 35.03933                        | 1.73142 | .29861 | .03760  | .00220  | -.00094 | -.00840 |
| .155          | 12.545   | .00000     | 35.23708                        | 1.88882 | .32782 | -.00213 | .00164  | -.00110 | -.00802 |
| .155          | 14.501   | .00000     | 35.20622                        | 1.99088 | .35501 | -.02128 | .00092  | -.00092 | -.00426 |
| .155          | 16.539   | .00000     | 35.25932                        | 2.08121 | .38850 | -.02585 | .00037  | -.00104 | -.00705 |
| .155          | 18.616   | .00000     | 35.33063                        | 2.11280 | .43118 | .00123  | .00032  | .00130  | -.00739 |
| .156          | 20.661   | .00000     | 35.46323                        | 2.02640 | .47566 | .03504  | .00087  | .00115  | -.00517 |
| .156          | 22.563   | .00000     | 35.67238                        | 1.89801 | .56001 | -.25078 | -.00001 | .00073  | -.00726 |
| .156          | 24.463   | .00000     | 35.79295                        | 1.83205 | .62218 | -.49524 | -.00467 | .00115  | -.00698 |
| .156          | 26.515   | .00000     | 35.81262                        | 1.78703 | .68782 | -.52939 | -.00068 | -.00570 | -.00038 |
|               | GRADIENT | .00000     | -.00686                         | .10030  | .00561 | -.02374 | .00004  | -.00027 | -.00078 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2TS2H15.1F30G5.3.5

(RJF026) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = 10.000

RUN NO. 26/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -1.777   | .00000 | 35.13541 | .69767  | .17147 | -.16067 | .00178  | -.00005 | -.00765 |
| .155 | -.348    | .00000 | 35.04745 | .93582  | .18191 | -.23103 | .00212  | -.00141 | -.01112 |
| .155 | 2.427    | .00000 | 35.02353 | 1.13547 | .19962 | -.28466 | .00161  | -.00161 | -.01212 |
| .155 | 4.442    | .00000 | 35.13854 | 1.33235 | .22097 | -.33834 | .00165  | -.00185 | -.01091 |
| .155 | 6.518    | .00000 | 35.24305 | 1.52710 | .24820 | -.38653 | .00216  | -.00188 | -.01161 |
| .155 | 8.571    | .00000 | 35.20722 | 1.70737 | .27935 | -.43900 | .00182  | -.00105 | -.00924 |
| .155 | 10.548   | .00000 | 35.29142 | 1.86541 | .31193 | -.48282 | .00158  | -.00205 | -.00859 |
| .155 | 12.594   | .00000 | 35.25795 | 2.02573 | .34266 | -.52535 | .00149  | -.00193 | -.00926 |
| .155 | 14.602   | .00000 | 35.02955 | 2.12637 | .37706 | -.54219 | .00095  | -.00170 | -.00767 |
| .155 | 16.639   | .00000 | 35.16978 | 2.21550 | .41383 | -.54250 | .00061  | -.00110 | -.00707 |
| .155 | 18.510   | .00000 | 35.31085 | 2.23219 | .45550 | -.49942 | .00019  | .00175  | -.00630 |
| .156 | 20.619   | .00000 | 35.52147 | 2.12793 | .49876 | -.36852 | .00080  | .00120  | -.00637 |
| .156 | 22.488   | .00000 | 35.68669 | 1.98301 | .58223 | -.58443 | .00048  | .00059  | -.00863 |
| .156 | 24.632   | .00000 | 35.70534 | 1.91102 | .65528 | -.84204 | -.00467 | -.00092 | -.00791 |
| .157 | 26.447   | .00000 | 36.19881 | 1.87728 | .71793 | -.87936 | -.00151 | -.00535 | -.00166 |
|      | GRADIENT | .00000 | -.00096  | .10149  | .00800 | -.02831 | -.00004 | -.00027 | -.00053 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2TS2H15.1F30G5.3.5

(RJF027) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = 17.000

| RUN NO. 27/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |        |         |         |         |         |
|---------------|----------|------------|---------------------------------|---------|--------|---------|---------|---------|---------|
| MACH          | ALPHA    | BETA       | Q(PSF)                          | CL      | CD     | CLM     | CLN     | CSL     | CY      |
| .155          | -1.804   | .00000     | 35.11921                        | .73154  | .17507 | -.33178 | .00132  | -.00064 | -.00757 |
| .155          | .262     | .00000     | 35.11236                        | .96562  | .18570 | -.40031 | .00209  | .00061  | -.00795 |
| .155          | 2.396    | .00000     | 35.16340                        | 1.19021 | .20423 | -.46464 | .00144  | -.00042 | -.00911 |
| .155          | 4.480    | .00000     | 35.10738                        | 1.38103 | .22927 | -.51576 | .00189  | -.00170 | -.01039 |
| .155          | 6.556    | .00000     | 35.15553                        | 1.59747 | .25621 | -.56518 | .00208  | -.00270 | -.01043 |
| .155          | 8.536    | .00000     | 35.20249                        | 1.76211 | .28795 | -.61337 | .00179  | -.00167 | -.00904 |
| .155          | 10.601   | .00000     | 35.22138                        | 1.92549 | .32239 | -.65701 | .00162  | -.00248 | -.00830 |
| .155          | 12.529   | .00000     | 35.12843                        | 2.05724 | .35733 | -.69566 | .00113  | -.00209 | -.00612 |
| .155          | 14.421   | .00000     | 35.26509                        | 2.16616 | .38947 | -.70370 | .00211  | -.00131 | -.00911 |
| .156          | 16.634   | .00000     | 35.46739                        | 2.25270 | .43124 | -.69709 | .00225  | -.00114 | -.01159 |
| .155          | 18.605   | .00000     | 35.40462                        | 2.26657 | .47595 | -.64555 | .00109  | .00298  | -.00750 |
| .156          | 20.591   | .00000     | 35.56265                        | 2.15180 | .51500 | -.49257 | .00213  | .00033  | -.00524 |
| .156          | 22.533   | .00000     | 35.65892                        | 2.00150 | .55585 | -.68305 | .00190  | .00179  | -.00694 |
| .156          | 24.582   | .00000     | 35.87511                        | 1.93382 | .66851 | -.95000 | -.00435 | .00027  | -.01127 |
| .157          | 26.401   | .00000     | 36.01711                        | 1.90690 | .73242 | -.97430 | .00123  | -.00238 | -.00236 |
|               | GRADIENT | .00000     | .00078                          | .10354  | .00863 | -.02936 | .00005  | -.00020 | -.00046 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2TS2H15.1F30G5.3.5

(RJF028) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -6.000 ELEVTR = .000

| RUN NO. 28/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |        |         |         |         |         |
|---------------|----------|------------|---------------------------------|---------|--------|---------|---------|---------|---------|
| MACH          | ALPHA    | BETA       | Q(PSF)                          | CL      | CD     | CLM     | CLN     | CSL     | CY      |
| .155          | -1.846   | .00000     | 35.21686                        | .61146  | .17959 | .16771  | .00321  | -.00005 | -.01138 |
| .155          | .316     | .00000     | 35.12482                        | .85120  | .18661 | .09155  | .00451  | .00007  | -.00991 |
| .155          | 2.456    | .00000     | 35.04221                        | 1.07115 | .20085 | .03312  | .00477  | -.00166 | -.01530 |
| .155          | 4.459    | .00000     | 35.19659                        | 1.26087 | .21947 | -.01148 | .00444  | -.00220 | -.01427 |
| .155          | 6.468    | .00000     | 35.02170                        | 1.45685 | .24128 | -.04934 | .00467  | -.00273 | -.01747 |
| .155          | 8.610    | .00000     | 35.16268                        | 1.63263 | .27274 | -.09290 | .00407  | -.00173 | -.01392 |
| .155          | 10.495   | .00000     | 35.07056                        | 1.78867 | .30175 | -.13848 | .00349  | -.00215 | -.01120 |
| .155          | 12.532   | .00000     | 35.15922                        | 1.93532 | .33188 | -.17633 | .00327  | -.00211 | -.01089 |
| .155          | 14.498   | .00000     | 35.23082                        | 2.04703 | .36002 | -.19477 | .00281  | -.00127 | -.00991 |
| .155          | 16.602   | .00000     | 35.20915                        | 2.13434 | .39624 | -.19281 | .00253  | .00014  | -.00813 |
| .155          | 18.598   | .00000     | 35.19514                        | 2.15457 | .43870 | -.15441 | .00227  | .00186  | -.01090 |
| .155          | 20.571   | .00000     | 35.41248                        | 2.04661 | .48490 | -.12025 | .00365  | -.00250 | -.00269 |
| .155          | 22.556   | .00000     | 35.43890                        | 1.92581 | .56528 | -.34119 | .00285  | .00161  | -.00563 |
| .157          | 24.589   | .00000     | 35.97308                        | 1.85701 | .63259 | -.59159 | -.00332 | .00047  | -.00975 |
| .157          | 26.406   | .00000     | 36.31780                        | 1.81895 | .68859 | -.63229 | .00045  | -.00136 | -.00054 |
|               | GRADIENT | .00000     | -.00728                         | .10304  | .00634 | -.02835 | .00019  | -.00039 | -.00067 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2TS2H15.1F30G5.3.5

(RJF029) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000

| RUN NO. 29/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |        |         |         |         |         |
|---------------|----------|------------|---------------------------------|---------|--------|---------|---------|---------|---------|
| MACH          | ALPHAW   | BETA       | Q(PSF)                          | CL      | CD     | CLM     | CLN     | CSL     | CY      |
| .155          | -1.724   | .00000     | 35.23801                        | .64998  | .17731 | .05454  | .00394  | .00024  | -.01069 |
| .155          | .319     | .00000     | 35.21162                        | .88452  | .18483 | -.00586 | .00452  | .00002  | -.01269 |
| .155          | 2.482    | .00000     | 35.19878                        | 1.09841 | .20097 | -.05536 | .00398  | -.00200 | -.01521 |
| .155          | 4.418    | .00000     | 35.19312                        | 1.27925 | .22024 | -.09562 | .00468  | -.00151 | -.01697 |
| .155          | 6.466    | .00000     | 35.23205                        | 1.47973 | .24381 | -.14022 | .00460  | -.00187 | -.01686 |
| .155          | 8.380    | .00000     | 35.19540                        | 1.63697 | .27333 | -.18068 | .00382  | -.00134 | -.01281 |
| .155          | 10.466   | .00000     | 35.19817                        | 1.81214 | .30461 | -.22572 | .00354  | -.00235 | -.01412 |
| .155          | 12.552   | .00000     | 35.20583                        | 1.96482 | .33649 | -.26403 | .00275  | -.00231 | -.01077 |
| .155          | 14.591   | .00000     | 35.27829                        | 2.06644 | .36658 | -.28091 | .00244  | -.00086 | -.00961 |
| .155          | 16.592   | .00000     | 35.20559                        | 2.15271 | .40191 | -.28066 | .00216  | -.00122 | -.01050 |
| .155          | 18.516   | .00000     | 35.35639                        | 2.16792 | .44036 | -.23736 | .00145  | .00310  | -.00939 |
| .156          | 20.563   | .00000     | 35.52556                        | 2.06884 | .48846 | -.18262 | .00241  | .00020  | -.00284 |
| .156          | 22.407   | .00000     | 35.54662                        | 1.94342 | .56520 | -.39574 | .00159  | .00167  | -.00766 |
| .156          | 24.379   | .00000     | 35.90125                        | 1.87413 | .63365 | -.65517 | -.00433 | .00090  | -.00872 |
| .158          | 26.410   | .00000     | 36.46772                        | 1.83971 | .69850 | -.69718 | -.00007 | -.00231 | -.00170 |
|               | GRADIENT | .00000     | -.00718                         | .10211  | .00703 | -.02430 | .00008  | -.00036 | -.00104 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) KIV9.1.2TS2H15.1F30G5.3.5

(RJF030) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000

| RUN NO. 30/ 0 |          | RN/L = .00 |          | GRADIENT INTERVAL = -5.00/ 5.00 |        |         |         |         |         |
|---------------|----------|------------|----------|---------------------------------|--------|---------|---------|---------|---------|
| MACH          | ALPHAW   | BETA       | Q(PSF)   | CL                              | CD     | CLM     | CLN     | CSL     | CY      |
| .155          | -1.744   | .00000     | 35.23012 | .67892                          | .17378 | -.03390 | .00413  | -.00066 | -.01172 |
| .155          | .307     | .00000     | 35.27458 | .90643                          | .18359 | -.09256 | .00422  | -.00041 | -.01056 |
| .155          | 2.378    | .00000     | 35.08725 | 1.10220                         | .20020 | -.13825 | .00354  | -.00144 | -.01513 |
| .155          | 4.385    | .00000     | 35.20734 | 1.30108                         | .21991 | -.18501 | .00412  | -.00217 | -.01709 |
| .155          | 5.460    | .00000     | 35.21708 | 1.41144                         | .23220 | -.20877 | .00388  | -.00174 | -.01472 |
| .155          | 6.481    | .00000     | 35.21577 | 1.49864                         | .24435 | -.23128 | .00396  | -.00045 | -.01322 |
| .155          | 7.488    | .00000     | 35.02809 | 1.58663                         | .26122 | -.25490 | .00346  | -.00160 | -.01378 |
| .155          | 8.511    | .00000     | 35.03047 | 1.66942                         | .27566 | -.27283 | .00407  | -.00160 | -.01473 |
| .155          | 9.510    | .00000     | 35.03554 | 1.74876                         | .29128 | -.29325 | .00395  | -.00171 | -.01482 |
| .155          | 10.468   | .00000     | 35.04366 | 1.83584                         | .30683 | -.31876 | .00330  | -.00197 | -.01396 |
| .155          | 11.446   | .00000     | 35.07548 | 1.90729                         | .32319 | -.33636 | .00302  | -.00245 | -.01093 |
| .155          | 12.554   | .00000     | 35.20880 | 1.97761                         | .33794 | -.35734 | .00265  | -.00286 | -.01085 |
| .155          | 13.517   | .00000     | 35.21258 | 2.04474                         | .35295 | -.36858 | .00192  | -.00052 | -.00809 |
| .155          | 14.477   | .00000     | 35.22317 | 2.09381                         | .36743 | -.37606 | .00228  | -.00057 | -.00942 |
| .155          | 15.557   | .00000     | 35.26316 | 2.13780                         | .38648 | -.38032 | .00151  | -.00105 | -.00891 |
| .155          | 16.481   | .00000     | 35.32478 | 2.17017                         | .40536 | -.37810 | .00183  | -.00073 | -.00919 |
| .155          | 17.540   | .00000     | 35.29442 | 2.19212                         | .42458 | -.36248 | .00166  | .00019  | -.00942 |
| .155          | 18.501   | .00000     | 35.36309 | 2.19501                         | .44673 | -.33461 | .00141  | .00212  | -.01152 |
| .155          | 19.589   | .00000     | 35.42674 | 2.16151                         | .46554 | -.27607 | .00130  | .00159  | -.00847 |
| .156          | 20.581   | .00000     | 35.54598 | 2.07618                         | .48602 | -.27001 | .00313  | -.00229 | -.00239 |
| .156          | 21.567   | .00000     | 35.55985 | 1.99564                         | .53861 | -.34922 | .00267  | .00131  | -.00764 |
| .156          | 22.537   | .00000     | 35.60364 | 1.95603                         | .57504 | -.46742 | .00145  | .00066  | -.00778 |
| .157          | 23.447   | .00000     | 36.09745 | 1.91526                         | .61153 | -.63909 | -.00201 | .00192  | -.00768 |
| .156          | 24.452   | .00000     | 35.77712 | 1.88652                         | .64411 | -.73495 | -.00438 | .00080  | -.01057 |
| .157          | 25.454   | .00000     | 36.09796 | 1.86827                         | .67497 | -.77440 | -.00017 | .00149  | -.00515 |
| .157          | 26.378   | .00000     | 36.01610 | 1.85056                         | .70522 | -.77514 | .00123  | -.00209 | -.00166 |
|               | GRADIENT | .00000     | -.01264  | .10081                          | .00757 | -.02439 | -.00004 | -.00027 | -.00101 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) KIV9.1.2TS2H15.1F3065.3.5

(RJF031) ( 18 JUN /6 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000

| RUN NO. |          | 31/ 0  | RN/L =   | .00     | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |
|---------|----------|--------|----------|---------|---------------------------------|---------|---------|---------|---------|
| MACH    | ALPHAW   | BETA   | Q(PSF)   | CL      | CD                              | CLM     | CLN     | CSL     | CY      |
| .155    | -1.704   | .00000 | 35.23537 | .67282  | .17192                          | -.02967 | .00185  | -.00009 | -.00375 |
| .155    | .279     | .00000 | 35.22109 | .90356  | .18122                          | -.08736 | .00273  | .00027  | -.00862 |
| .155    | 2.330    | .00000 | 35.21397 | 1.11227 | .19617                          | -.13562 | .00226  | .00000  | -.00751 |
| .155    | 4.315    | .00000 | 35.27435 | 1.29937 | .21682                          | -.18011 | .00241  | -.00092 | -.01078 |
| .155    | 5.409    | .00000 | 35.15428 | 1.39609 | .23082                          | -.20180 | .00206  | -.00160 | -.00892 |
| .155    | 6.462    | .00000 | 35.01927 | 1.48626 | .24533                          | -.22432 | .00210  | -.00206 | -.00802 |
| .155    | 7.458    | .00000 | 35.04360 | 1.59409 | .25849                          | -.25122 | .00220  | -.00194 | -.00885 |
| .155    | 8.513    | .00000 | 35.03199 | 1.67708 | .27398                          | -.27408 | .00207  | -.00072 | -.00742 |
| .155    | 9.555    | .00000 | 35.04714 | 1.76175 | .29140                          | -.29520 | .00226  | -.00152 | -.00865 |
| .155    | 10.551   | .00000 | 35.15280 | 1.83536 | .30781                          | -.31676 | .00233  | -.00281 | -.00801 |
| .155    | 11.548   | .00000 | 35.06625 | 1.91793 | .32458                          | -.33454 | .00168  | -.00243 | -.00681 |
| .155    | 12.550   | .00000 | 35.20279 | 1.99924 | .33616                          | -.35760 | .00188  | -.00121 | -.00616 |
| .155    | 13.716   | .00000 | 35.21376 | 2.06709 | .35443                          | -.36932 | .00163  | -.00066 | -.00587 |
| .155    | 14.521   | .00000 | 35.22906 | 2.10665 | .36897                          | -.37615 | .00131  | -.00124 | -.00653 |
| .155    | 15.477   | .00000 | 35.26557 | 2.13867 | .38745                          | -.38088 | .00081  | -.00151 | -.00501 |
| .155    | 16.529   | .00000 | 35.15252 | 2.18208 | .40750                          | -.37705 | .00061  | -.00141 | -.00435 |
| .155    | 17.495   | .00000 | 35.15348 | 2.20222 | .42585                          | -.36289 | .00104  | -.00091 | -.00674 |
| .155    | 18.530   | .00000 | 35.28700 | 2.19106 | .44471                          | -.31844 | .00080  | .00213  | -.00545 |
| .155    | 19.646   | .00000 | 35.41458 | 2.15918 | .46992                          | -.27115 | -.00058 | .00364  | -.00293 |
| .156    | 20.499   | .00000 | 35.53259 | 2.09392 | .49073                          | -.23923 | .00042  | .00308  | -.00513 |
|         | GRADIENT | .00000 | .00544   | .10385  | .00744                          | -.02484 | .00006  | -.00014 | -.00099 |



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(CA-8) K1V9.1.2TS2

F30G5.3.5

(RJF032) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090

| RUN NO. 32/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |        |         |         |         |         |
|---------------|----------|------------|---------------------------------|---------|--------|---------|---------|---------|---------|
| MACH          | ALPHAW   | BETA       | Q(PSF)                          | CL      | CD     | CLM     | CLN     | CSL     | CY      |
| .155          | -1.720   | .00000     | 35.23682                        | .76576  | .16889 | -.39690 | .00149  | -.00089 | -.00572 |
| .155          | .369     | .00000     | 35.04976                        | .99690  | .17972 | -.40823 | .00170  | -.00013 | -.00781 |
| .155          | 2.260    | .00000     | 35.03200                        | 1.16421 | .19732 | -.40384 | .00132  | -.00184 | -.00924 |
| .155          | 3.297    | .00000     | 35.09134                        | 1.26499 | .20716 | -.40016 | .00180  | -.00125 | -.01098 |
| .155          | 4.421    | .00000     | 35.13602                        | 1.36764 | .21895 | -.39449 | .00212  | .00032  | -.01010 |
| .155          | 5.426    | .00000     | 35.03748                        | 1.45828 | .23148 | -.38642 | .00221  | -.00131 | -.01172 |
| .155          | 6.542    | .00000     | 35.05435                        | 1.55130 | .24570 | -.37426 | .00287  | -.00062 | -.01236 |
| .155          | 7.506    | .00000     | 35.12677                        | 1.62130 | .25975 | -.36934 | .00279  | -.00151 | -.01304 |
| .155          | 8.559    | .00000     | 35.21142                        | 1.70611 | .27511 | -.36102 | .00242  | -.00121 | -.01115 |
| .155          | 9.421    | .00000     | 35.30061                        | 1.76446 | .28834 | -.35411 | .00251  | -.00157 | -.01169 |
| .155          | 10.464   | .00000     | 35.26782                        | 1.84568 | .30289 | -.34551 | .00228  | -.00223 | -.01124 |
| .155          | 11.464   | .00000     | 35.13801                        | 1.91957 | .31704 | -.33691 | .00218  | -.00186 | -.01042 |
| .155          | 12.456   | .00000     | 35.05678                        | 1.98863 | .33063 | -.32726 | .00274  | -.00182 | -.01379 |
| .155          | 13.499   | .00000     | 35.20932                        | 2.04575 | .34445 | -.31190 | .00191  | -.00077 | -.01066 |
| .155          | 14.463   | .00000     | 35.20945                        | 2.08147 | .35860 | -.29507 | .00243  | -.00048 | -.01178 |
| .155          | 15.543   | .00000     | 35.25174                        | 2.12702 | .37550 | -.27074 | .00228  | .00003  | -.01065 |
| .155          | 16.461   | .00000     | 35.26871                        | 2.15018 | .39082 | -.24514 | .00182  | -.00107 | -.01136 |
| .155          | 17.483   | .00000     | 35.14792                        | 2.16590 | .41188 | -.21521 | .00164  | .00065  | -.01123 |
| .155          | 18.476   | .00000     | 35.35841                        | 2.15942 | .42975 | -.17885 | .00160  | .00136  | -.01132 |
| .155          | 19.492   | .00000     | 35.25785                        | 2.13701 | .45103 | -.14449 | .00181  | .00350  | -.01267 |
| .155          | 20.430   | .00000     | 35.34719                        | 2.07280 | .47412 | -.13807 | .00238  | -.00081 | -.00676 |
| .156          | 21.453   | .00000     | 35.52112                        | 1.97789 | .51883 | -.17375 | .00308  | .00045  | -.00438 |
| .156          | 22.482   | .00000     | 35.58961                        | 1.90417 | .55204 | -.20959 | .00042  | .00114  | -.01060 |
| .156          | 23.413   | .00000     | 35.88617                        | 1.82180 | .57536 | -.26985 | -.00440 | .00315  | -.01302 |
| .156          | 24.470   | .00000     | 35.84981                        | 1.78065 | .59966 | -.28441 | -.00454 | .00140  | -.01421 |
| .157          | 25.399   | .00000     | 36.12352                        | 1.75294 | .62370 | -.27645 | -.00036 | -.00006 | -.00576 |
| .157          | 26.285   | .00000     | 36.11378                        | 1.73345 | .64921 | -.25615 | .00084  | -.00342 | -.00544 |
|               | GRADIENT | .00000     | -.01501                         | .09719  | .00824 | .00055  | .00008  | .00005  | -.00081 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1V9.1.2TS3 F30G5.3.5

(RJF034) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090

RUN NO. 34/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -1.750   | .00000 | 35.18082 | .79041  | .16212 | -.40253 | .00206  | -.00052 | -.00947 |
| .155 | .283     | .00000 | 35.12172 | .98712  | .17565 | -.40695 | .00189  | -.00070 | -.01115 |
| .155 | 2.315    | .00000 | 35.06537 | 1.17911 | .19341 | -.40423 | .00188  | -.00078 | -.01070 |
| .155 | 4.435    | .00000 | 35.18785 | 1.37222 | .21493 | -.39173 | .00245  | -.00101 | -.01359 |
| .155 | 5.394    | .00000 | 35.18287 | 1.46377 | .22587 | -.38249 | .00289  | -.00039 | -.01221 |
| .155 | 6.403    | .00000 | 35.19177 | 1.53558 | .24030 | -.37531 | .00262  | -.00170 | -.01386 |
| .155 | 7.468    | .00000 | 35.21879 | 1.61524 | .25724 | -.36876 | .00239  | -.00160 | -.01209 |
| .155 | 8.437    | .00000 | 35.13111 | 1.70005 | .26875 | -.35944 | .00301  | -.00168 | -.01446 |
| .155 | 9.427    | .00000 | 35.03843 | 1.77624 | .28411 | -.35017 | .00275  | -.00144 | -.01275 |
| .155 | 10.447   | .00000 | 35.11069 | 1.84886 | .30013 | -.34215 | .00253  | -.00290 | -.01360 |
| .155 | 11.464   | .00000 | 35.17748 | 1.92065 | .31424 | -.33220 | .00263  | -.00168 | -.01338 |
| .155 | 12.551   | .00000 | 35.21250 | 1.99327 | .32938 | -.32233 | .00255  | -.00235 | -.01382 |
| .155 | 13.512   | .00000 | 35.30185 | 2.04394 | .34276 | -.30669 | .00231  | -.00098 | -.01373 |
| .155 | 14.499   | .00000 | 35.06788 | 2.08528 | .35578 | -.28729 | .00258  | -.00148 | -.01526 |
| .155 | 15.469   | .00000 | 35.11131 | 2.11658 | .37358 | -.26946 | .00247  | -.00052 | -.01413 |
| .155 | 16.480   | .00000 | 35.11626 | 2.15139 | .38981 | -.24015 | .00187  | -.00120 | -.01253 |
| .155 | 17.450   | .00000 | 35.19178 | 2.17511 | .40588 | -.21116 | .00288  | -.00225 | -.01713 |
| .155 | 18.603   | .00000 | 35.32250 | 2.15979 | .42947 | -.17080 | .00168  | .00227  | -.01103 |
| .155 | 19.573   | .00000 | 35.30207 | 2.14133 | .45082 | -.14480 | .00212  | .00186  | -.01202 |
| .155 | 20.608   | .00000 | 35.37309 | 2.06702 | .47771 | -.13563 | .00217  | .00111  | -.00822 |
| .155 | 21.578   | .00000 | 35.36520 | 1.96743 | .52151 | -.18225 | .00329  | -.00020 | -.00777 |
| .155 | 22.471   | .00000 | 35.61175 | 1.91003 | .54965 | -.21462 | .00240  | .00048  | -.00960 |
| .156 | 23.451   | .00000 | 35.84162 | 1.82684 | .57271 | -.26337 | -.00220 | .00187  | -.01226 |
| .157 | 24.447   | .00000 | 35.97041 | 1.79072 | .59735 | -.27872 | -.00467 | .00153  | -.01405 |
| .157 | 25.442   | .00000 | 35.98499 | 1.75799 | .62355 | -.25619 | -.00201 | -.00332 | -.00802 |
| .157 | 26.285   | .00000 | 35.95825 | 1.73557 | .64856 | -.24290 | -.00097 | -.00504 | -.00413 |
|      | GRADIENT | .00000 | -.00149  | .09405  | .00857 | .00172  | .00006  | -.00008 | -.00058 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K2V9.1.2TS2F30H15.6.1G5.3.5TS401

(RJF035) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -6.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 35/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -1.823   | .00000 | 35.19511 | .53303  | .20838 | .07759  | .00016  | -.00059 | -.01215 |
| .155 | .272     | .00000 | 35.12685 | .77739  | .21360 | .01938  | .00036  | .00164  | -.00820 |
| .155 | 2.367    | .00000 | 35.20501 | 1.01398 | .22361 | -.03166 | .00081  | .00024  | -.01287 |
| .155 | 4.461    | .00000 | 35.16323 | 1.20807 | .24158 | -.06812 | .00114  | .00008  | -.01457 |
| .155 | 6.438    | .00000 | 35.28844 | 1.38232 | .26535 | -.08776 | .00093  | -.00028 | -.01029 |
| .155 | 8.528    | .00000 | 35.25476 | 1.58037 | .29094 | -.11326 | .00132  | -.00055 | -.01120 |
| .155 | 10.488   | .00000 | 35.30162 | 1.74699 | .32110 | -.13674 | .00109  | -.00055 | -.00927 |
| .155 | 12.534   | .00000 | 35.11212 | 1.92799 | .35015 | -.17336 | .00096  | -.00232 | -.01184 |
| .155 | 14.535   | .00000 | 35.21880 | 2.03807 | .38561 | -.18441 | .00004  | -.00165 | -.00896 |
| .155 | 16.519   | .00000 | 35.26246 | 2.13984 | .42142 | -.18687 | .00058  | -.00035 | -.00898 |
| .155 | 18.655   | .00000 | 35.34393 | 2.19688 | .46727 | -.14649 | .00086  | .00317  | -.00737 |
| .156 | 20.590   | .00000 | 35.47687 | 2.19892 | .51873 | -.08724 | .00039  | .00507  | -.00918 |
| .156 | 22.658   | .00000 | 35.61697 | 2.17137 | .58291 | -.05708 | .00099  | .00075  | -.00562 |
| .156 | 24.603   | .00000 | 35.78959 | 2.10661 | .67148 | -.10256 | .00209  | -.00400 | .00383  |
| .157 | 26.806   | .00000 | 35.98137 | 2.05048 | .78515 | -.18267 | -.00897 | -.01270 | .01192  |
|      | GRADIENT | .00000 | -.00083  | .10797  | .00523 | -.02331 | .00016  | .00003  | -.00057 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401

(RJF036) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -6.000 ELEVTR = .000  
 TORB = 3.000 ELEVON = .000  
 BOFLAP = -11.700

RUN NO. 36/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -1.791   | .00000 | 35.21870 | .54424  | .20844 | .07695  | .00023  | -.00003 | -.00973 |
| .155 | .264     | .00000 | 35.24866 | .77366  | .21283 | .01877  | .00024  | .00092  | -.00952 |
| .155 | 2.330    | .00000 | 35.22441 | .98725  | .22533 | -.02514 | .00062  | -.00034 | -.01436 |
| .155 | 4.420    | .00000 | 35.24625 | 1.19231 | .24341 | -.06373 | .00066  | -.00128 | -.01420 |
| .155 | 6.488    | .00000 | 35.27711 | 1.39477 | .26562 | -.08885 | .00082  | -.00160 | -.01481 |
| .155 | 8.574    | .00000 | 35.33472 | 1.60001 | .28987 | -.11096 | .00122  | -.00003 | -.01184 |
| .155 | 10.564   | .00000 | 35.16901 | 1.74199 | .32258 | -.13617 | .00079  | -.00142 | -.00862 |
| .155 | 12.592   | .00000 | 34.97262 | 1.92639 | .35273 | -.17198 | .00102  | -.00068 | -.01141 |
| .155 | 14.565   | .00000 | 35.13128 | 2.05173 | .38580 | -.18259 | .00025  | -.00069 | -.01062 |
| .155 | 16.595   | .00000 | 35.27169 | 2.15010 | .42387 | -.18243 | .00074  | -.00104 | -.01003 |
| .156 | 18.587   | .00000 | 35.42153 | 2.19988 | .46933 | -.15318 | .00086  | .00252  | -.00863 |
| .156 | 20.559   | .00000 | 35.61032 | 2.20143 | .51988 | -.09324 | -.00026 | .00559  | -.00695 |
| .156 | 22.594   | .00000 | 35.59977 | 2.17299 | .58281 | -.05542 | .00092  | .00053  | -.00780 |
| .156 | 24.641   | .00000 | 35.57815 | 2.11329 | .67136 | -.09117 | -.00087 | -.00520 | -.00159 |
| .156 | 26.788   | .00000 | 35.54711 | 2.04733 | .78522 | -.19368 | -.01042 | -.01308 | .00444  |
|      | GRADIENT | .00000 | .00282   | .10424  | .00568 | -.02250 | .00008  | -.00024 | -.00088 |

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## CA-8 - FORCE SOURCE DATA TABULATION

PAGE 36

(CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401

(RJF037) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 37/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -1.826   | .00000 | 35.03682 | .54156  | .20433 | -.00787 | .00036  | .00184  | -.01108 |
| .155 | .286     | .00000 | 35.16246 | .80217  | .21012 | -.07188 | .00055  | .00000  | -.01583 |
| .155 | 2.419    | .00000 | 35.22397 | 1.02851 | .22285 | -.11570 | .00045  | -.00014 | -.01395 |
| .155 | 4.444    | .00000 | 35.35779 | 1.21795 | .24224 | -.14766 | .00040  | -.00239 | -.01337 |
| .155 | 6.492    | .00000 | 35.30964 | 1.41665 | .26549 | -.17116 | .00107  | .00092  | -.01262 |
| .155 | 8.630    | .00000 | 35.11768 | 1.61314 | .29351 | -.20215 | .00094  | -.00183 | -.01357 |
| .155 | 10.528   | .00000 | 35.25425 | 1.77508 | .32336 | -.23317 | .00014  | -.00211 | -.00354 |
| .155 | 12.598   | .00000 | 35.24904 | 1.93039 | .35998 | -.26848 | .00086  | -.00347 | -.01530 |
| .155 | 14.653   | .00000 | 35.20879 | 2.07761 | .39300 | -.28363 | .00030  | -.00137 | -.01050 |
| .155 | 16.534   | .00000 | 35.27729 | 2.16831 | .42695 | -.28338 | .00005  | -.00098 | -.01008 |
| .156 | 18.567   | .00000 | 35.47111 | 2.22315 | .47484 | -.25035 | .00074  | .00308  | -.00934 |
| .156 | 20.587   | .00000 | 35.51905 | 2.22304 | .52789 | -.18857 | -.00112 | .00700  | -.00443 |
| .156 | 22.569   | .00000 | 35.61685 | 2.19340 | .58774 | -.13823 | -.00050 | .00172  | -.00438 |
| .156 | 24.574   | .00000 | 35.62066 | 2.12304 | .67739 | -.17580 | -.00178 | -.00427 | -.00240 |
| .156 | 26.784   | .00000 | 35.63990 | 2.06700 | .79312 | -.25230 | -.01006 | -.01183 | .00807  |
|      | GRADIENT | .00000 | .04886   | .10776  | .00602 | -.02214 | .00000  | -.00061 | -.00024 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401

(RJF038) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

| RUN NO. |          | 38/ 0  | RN/L =   | .00     | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |  |
|---------|----------|--------|----------|---------|---------------------------------|---------|---------|---------|---------|--|
| MACH    | ALPHA    | BETA   | Q(PSF)   | CL      | CD                              | CLM     | CLN     | CSL     | CY      |  |
| .155    | -2.726   | .00000 | 35.11492 | .47144  | .19971                          | -.07139 | .00049  | .00156  | -.01108 |  |
| .155    | .283     | .00000 | 35.07360 | .81512  | .20882                          | -.15152 | .00010  | -.00064 | -.01403 |  |
| .155    | 2.405    | .00000 | 34.98438 | 1.05589 | .22179                          | -.19769 | .00057  | .00048  | -.01362 |  |
| .155    | 4.477    | .00000 | 34.98251 | 1.24197 | .24252                          | -.22991 | .00055  | -.00156 | -.01410 |  |
| .155    | 5.516    | .00000 | 35.08261 | 1.35007 | .25410                          | -.24835 | .00046  | -.00133 | -.01369 |  |
| .155    | 6.251    | .00000 | 35.09260 | 1.41279 | .26353                          | -.25976 | .00046  | -.00080 | -.01160 |  |
| .155    | 7.511    | .00000 | 35.04211 | 1.53286 | .28060                          | -.28098 | .00060  | -.00147 | -.01202 |  |
| .155    | 8.519    | .00000 | 35.02648 | 1.62503 | .29543                          | -.29948 | .00027  | -.00181 | -.01063 |  |
| .155    | 9.474    | .00000 | 35.06267 | 1.70603 | .31036                          | -.31366 | .00054  | -.00101 | -.00987 |  |
| .155    | 10.585   | .00000 | 35.10584 | 1.80484 | .32863                          | -.33463 | .00049  | -.00039 | -.00999 |  |
| .155    | 11.578   | .00000 | 35.11659 | 1.89213 | .34580                          | -.35148 | -.00004 | -.00257 | -.01097 |  |
| .155    | 12.584   | .00000 | 35.09869 | 1.96730 | .36298                          | -.37141 | .00065  | -.00142 | -.01241 |  |
| .155    | 13.578   | .00000 | 35.18785 | 2.04335 | .37790                          | -.38422 | .00062  | -.00019 | -.01072 |  |
| .155    | 14.624   | .00000 | 35.23168 | 2.10972 | .39623                          | -.38684 | .00009  | -.00010 | -.00890 |  |
| .155    | 15.637   | .00000 | 35.25011 | 2.16505 | .41225                          | -.38846 | .00033  | -.00079 | -.01139 |  |
| .155    | 16.611   | .00000 | 35.32553 | 2.20151 | .43442                          | -.38568 | .00038  | -.00042 | -.01262 |  |
| .156    | 17.637   | .00000 | 35.44014 | 2.24516 | .45757                          | -.37758 | .00110  | -.00167 | -.01106 |  |
| .156    | 18.688   | .00000 | 35.50448 | 2.24768 | .48113                          | -.34197 | -.00002 | .00326  | -.00694 |  |
| .156    | 19.477   | .00000 | 35.31677 | 2.24774 | .50172                          | -.30715 | -.00088 | .00692  | -.00115 |  |
| .156    | 20.515   | .00000 | 35.39950 | 2.24604 | .53185                          | -.28010 | -.00048 | .00372  | -.00738 |  |
| .156    | 21.579   | .00000 | 35.42426 | 2.23884 | .56386                          | -.24800 | -.00046 | .00341  | -.00866 |  |
| .156    | 22.577   | .00000 | 35.38790 | 2.21318 | .59709                          | -.22160 | -.00001 | .00011  | -.00587 |  |
| .156    | 23.661   | .00000 | 35.43000 | 2.17422 | .64249                          | -.22363 | .00017  | -.00424 | -.00467 |  |
| .156    | 24.594   | .00000 | 35.68987 | 2.14646 | .68743                          | -.25007 | -.00192 | -.00554 | .00044  |  |
| .157    | 25.617   | .00000 | 35.96654 | 2.11973 | .73524                          | -.29037 | -.00116 | -.00668 | -.00438 |  |
| .157    | 26.972   | .00000 | 35.88442 | 2.06995 | .80795                          | -.35011 | -.00899 | -.01476 | .00212  |  |
|         | GRADIENT | .00000 | -.02044  | .10796  | .00582                          | -.02221 | .00002  | -.00035 | -.00039 |  |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401

(RJF039) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = 17.000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

| RUN NO. 39/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |        |         |         |         |         |
|---------------|----------|------------|---------------------------------|---------|--------|---------|---------|---------|---------|
| MACH          | ALPHAW   | BETA       | Q(PSF)                          | CL      | CD     | CLM     | CLN     | CSL     | CY      |
| .155          | -2.766   | .00000     | 35.32217                        | .55721  | .20016 | -.40988 | -.00020 | -.00043 | -.01210 |
| .155          | .311     | .00000     | 35.23015                        | .89701  | .21453 | -.49627 | .00011  | -.00165 | -.01301 |
| .155          | 2.372    | .00000     | 35.31679                        | 1.13169 | .23058 | -.54561 | .00031  | -.00077 | -.01238 |
| .155          | 4.379    | .00000     | 35.22171                        | 1.32772 | .25264 | -.58791 | .00051  | -.00157 | -.01298 |
| .155          | 6.461    | .00000     | 35.15206                        | 1.53738 | .28093 | -.62228 | .00052  | -.00087 | -.01179 |
| .155          | 8.449    | .00000     | 35.15371                        | 1.71912 | .31117 | -.65761 | .00027  | -.00120 | -.00811 |
| .155          | 10.493   | .00000     | 35.17217                        | 1.87853 | .34732 | -.68964 | .00032  | -.00133 | -.01064 |
| .155          | 12.544   | .01000     | 35.24128                        | 2.05165 | .38285 | -.72725 | .00041  | -.00257 | -.01536 |
| .155          | 14.532   | .01000     | 35.18944                        | 2.19047 | .41776 | -.74479 | -.00001 | -.00111 | -.01045 |
| .155          | 16.588   | .01000     | 35.33974                        | 2.27982 | .46255 | -.74139 | .00055  | -.00108 | -.01471 |
| .155          | 18.585   | .01000     | 35.33040                        | 2.32649 | .50653 | -.69372 | .00023  | .00139  | -.00933 |
| .156          | 20.604   | .01000     | 35.48051                        | 2.31452 | .56520 | -.60693 | -.00029 | .00475  | -.01060 |
| .156          | 22.576   | .01000     | 35.65457                        | 2.27171 | .62592 | -.51804 | .00009  | .00148  | -.00913 |
| .157          | 24.546   | .01000     | 35.91252                        | 2.19588 | .71208 | -.49366 | -.00171 | -.00476 | -.00540 |
| .157          | 26.727   | .01000     | 36.23373                        | 2.14215 | .82667 | -.54203 | -.00897 | -.01412 | .00424  |
|               | GRADIENT | .00000     | -.00962                         | .10857  | .00723 | -.02501 | .00010  | -.00012 | -.00009 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K2V9.1.2TS5F30H15.6.1G5.3.5TS401

(RJF040) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA. = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = 10.000  
 TORB = 3.000 ELEVON = .000  
 BOFLAP = -11.700

RUN NO. 40/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -2.738   | .00000 | 35.21890 | .50862  | .20112 | -.22809 | .00009  | .00042  | -.01107 |
| .155 | .307     | .00000 | 35.17788 | .86140  | .21243 | -.32011 | .00004  | .00066  | -.01133 |
| .155 | 2.336    | .00000 | 35.16430 | 1.07000 | .22723 | -.36294 | .00034  | -.00136 | -.01527 |
| .155 | 4.382    | .00000 | 35.15030 | 1.28154 | .24651 | -.40509 | .00048  | -.00149 | -.01228 |
| .155 | 6.461    | .00000 | 35.15782 | 1.47591 | .27310 | -.43814 | .00070  | -.00114 | -.01333 |
| .155 | 8.427    | .00000 | 35.13839 | 1.65406 | .30306 | -.47561 | .00039  | -.00234 | -.01211 |
| .155 | 10.430   | .00000 | 35.17839 | 1.82873 | .33644 | -.50970 | .00046  | -.00027 | -.00950 |
| .155 | 12.511   | .00000 | 35.18148 | 2.01126 | .37266 | -.54910 | .00057  | -.00171 | -.01426 |
| .155 | 14.525   | .00000 | 35.20592 | 2.12999 | .40725 | -.56357 | .00055  | -.00055 | -.01468 |
| .155 | 16.551   | .00000 | 35.23737 | 2.24148 | .44452 | -.56365 | .00036  | -.00085 | -.01291 |
| .155 | 18.564   | .00000 | 35.33929 | 2.29000 | .49746 | -.53152 | .00042  | .00155  | -.01259 |
| .156 | 20.577   | .00000 | 35.46934 | 2.27665 | .54785 | -.44620 | -.00046 | .00448  | -.00793 |
| .156 | 22.598   | .00000 | 35.64310 | 2.24087 | .61002 | -.37399 | -.00009 | .00088  | -.00748 |
| .156 | 24.524   | .00000 | 35.89908 | 2.16313 | .69527 | -.36826 | -.00151 | -.00483 | -.00357 |
| .157 | 26.761   | .00000 | 36.22872 | 2.10426 | .81230 | -.43766 | -.01015 | -.01317 | .00336  |
|      | GRADIENT | .00000 | -.00957  | .10842  | .00631 | -.02481 | .00006  | -.00032 | -.00033 |



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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K2V9.1.2TS5H15.6.1F3005.3.5TS401

(RJF041) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = -10.000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 41/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHAW | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|----------|--------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155     | -2.711 | .00000 | 35.22022 | .38799  | .21179 | .24805  | .00021  | -.00052 | -.01568 |
| .155     | .308   | .00000 | 35.18514 | .73654  | .21772 | .17312  | .00033  | .00022  | -.01256 |
| .155     | 2.318  | .00000 | 35.16363 | .94607  | .22683 | .13302  | .00027  | -.00028 | -.01069 |
| .155     | 4.334  | .00000 | 35.15497 | 1.13537 | .24316 | .09681  | .00056  | -.00068 | -.01205 |
| .155     | 6.370  | .00000 | 35.14037 | 1.34250 | .26294 | .07825  | .00118  | -.00037 | -.01192 |
| .155     | 8.478  | .00000 | 35.13870 | 1.52559 | .28854 | .05122  | .00063  | -.00097 | -.01138 |
| .155     | 10.403 | .00000 | 35.14232 | 1.69002 | .31644 | .02579  | .00069  | -.00185 | -.01413 |
| .155     | 12.528 | .00000 | 35.14275 | 1.86363 | .34740 | -.00855 | .00058  | -.00230 | -.01539 |
| .155     | 14.498 | .00000 | 35.15531 | 1.99577 | .37799 | -.02423 | .00075  | -.00086 | -.01357 |
| .155     | 16.542 | .00000 | 35.19499 | 2.10866 | .41745 | -.02609 | -.00008 | -.00049 | -.00846 |
| .155     | 18.556 | .00000 | 35.26868 | 2.17396 | .46175 | .00382  | .00015  | .00344  | -.00872 |
| .155     | 20.539 | .00000 | 35.39265 | 2.16002 | .50953 | .05651  | -.00014 | .00467  | -.00984 |
| .156     | 22.560 | .00000 | 35.55376 | 2.11902 | .56620 | .08285  | .00064  | .00165  | -.01013 |
| .156     | 24.549 | .00000 | 35.80602 | 2.07910 | .65903 | .01436  | -.00141 | -.00395 | -.00269 |
| .157     | 26.988 | .00000 | 36.15034 | 2.00131 | .77877 | -.10557 | -.00980 | -.01362 | .00694  |
| GRADIENT |        | .00000 | -.00953  | .10644  | .00432 | -.02151 | .00004  | -.00003 | .00058  |

REPRODUCIBILITY OF THE  
 ORIGINAL PAGE IS POOR

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K2V9.1.2TS5H15.6.1F30G5.3.5TS401

(RJF042) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = -23.000  
 TORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

| RUN NO. 42/ 0 |          | RN/L = .00 |          | GRADIENT INTERVAL = -5.00/ 5.00 |        |         |         |         |         |
|---------------|----------|------------|----------|---------------------------------|--------|---------|---------|---------|---------|
| MACH          | ALPHAW   | BETA       | Q(PSF)   | CL                              | CD     | CLM     | CLN     | CSL     | CY      |
| .155          | -2.695   | .00000     | 35.23322 | .33028                          | .22899 | .49693  | .00059  | -.00036 | -.01298 |
| .155          | .231     | .00000     | 35.19189 | .65667                          | .22891 | .43164  | .00108  | .00073  | -.01195 |
| .155          | 2.277    | .00000     | 35.17455 | .87418                          | .23880 | .40505  | .00086  | .00001  | -.01216 |
| .155          | 4.303    | .00000     | 35.16462 | 1.06072                         | .25299 | .38313  | .00054  | -.00143 | -.01087 |
| .155          | 6.398    | .00000     | 35.14517 | 1.26046                         | .26835 | .35689  | .00151  | -.00114 | -.01483 |
| .155          | 8.435    | .00000     | 35.13759 | 1.43794                         | .28924 | .33321  | .00103  | -.00107 | -.01201 |
| .155          | 10.491   | .00000     | 35.13743 | 1.63090                         | .31877 | .29251  | .00006  | -.00103 | -.01537 |
| .155          | 12.499   | .00000     | 35.15916 | 1.77995                         | .35309 | .23444  | -.00172 | -.00101 | -.00960 |
| .155          | 14.476   | .00000     | 35.15257 | 1.93075                         | .37828 | .22422  | -.00108 | .00147  | -.00833 |
| .155          | 16.522   | .00000     | 35.18370 | 2.03060                         | .41082 | .23489  | -.00105 | .00076  | -.01082 |
| .155          | 18.522   | .00000     | 35.25694 | 2.09371                         | .45393 | .25904  | -.00134 | .00211  | -.00988 |
| .155          | 20.525   | .00000     | 35.37601 | 2.08227                         | .50027 | .31763  | -.00134 | .00579  | -.01235 |
| .156          | 22.571   | .00000     | 35.52603 | 2.07104                         | .55886 | .32986  | -.00092 | .00230  | -.00425 |
| .156          | 24.513   | .00000     | 35.76056 | 1.99432                         | .63731 | .21626  | -.00173 | -.00339 | -.00415 |
| .157          | 27.012   | .00000     | 36.11764 | 1.94948                         | .76929 | .06854  | -.01030 | -.01138 | .00642  |
|               | GRADIENT | .00000     | -.00989  | .10492                          | .00339 | -.01625 | -.00001 | -.00015 | .00027  |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K2V9.1.2TS5F30G5.3.5TS401

(RJF043) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 43/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q (PSF)  | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -2.853   | .00000 | 35.21008 | .52104  | .19588 | -.32380 | .00042  | .00016  | -.01003 |
| .155 | .334     | .00000 | 35.17744 | .87309  | .20763 | -.36069 | .00067  | .00039  | -.01157 |
| .155 | 2.341    | .00000 | 35.16485 | 1.07694 | .22257 | -.36665 | .00028  | .00012  | -.01277 |
| .155 | 4.399    | .00000 | 35.15657 | 1.27475 | .24256 | -.36907 | .00036  | -.00183 | -.01338 |
| .155 | 6.414    | .00000 | 35.15086 | 1.46153 | .26582 | -.36432 | .00065  | -.00034 | -.01557 |
| .155 | 8.447    | .00000 | 35.16034 | 1.61631 | .29354 | -.36407 | .00083  | .00032  | -.01304 |
| .155 | 10.436   | .00000 | 35.16729 | 1.78911 | .32578 | -.36358 | .00099  | -.00080 | -.01454 |
| .155 | 12.474   | .00000 | 35.16614 | 1.94656 | .35464 | -.36152 | .00066  | -.00132 | -.01296 |
| .155 | 14.512   | .00000 | 35.18556 | 2.08451 | .39037 | -.34736 | .00072  | -.00034 | -.01476 |
| .155 | 16.532   | .00000 | 35.22749 | 2.17841 | .42763 | -.32041 | .00020  | -.00020 | -.01484 |
| .155 | 18.562   | .00000 | 35.30599 | 2.23578 | .47260 | -.27450 | -.00002 | .00308  | -.01292 |
| .155 | 20.592   | .00000 | 35.43970 | 2.22730 | .52549 | -.21423 | .00067  | .00495  | -.01359 |
| .156 | 22.563   | .00000 | 35.60903 | 2.18212 | .58425 | -.16406 | .00119  | .00167  | -.01318 |
| .156 | 24.521   | .00000 | 35.88766 | 2.10484 | .67917 | -.11516 | -.00712 | -.01230 | .00023  |
| .157 | 26.939   | .00000 | 36.18874 | 2.00710 | .77731 | -.09888 | -.00996 | -.01072 | .00746  |
|      | GRADIENT | .00000 | -.00746  | .10413  | .00635 | -.00628 | -.00002 | -.00024 | -.00048 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5

F30G5.3.5TS401

(RJF044) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 TORB = 6.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 44/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -2.865   | .00000 | 35.20323 | .55677  | .19297 | -.32560 | .00075  | .00138  | -.01433 |
| .155 | .349     | .00000 | 35.17302 | .91591  | .20760 | -.36261 | .00085  | .00031  | -.01211 |
| .155 | 2.318    | .00000 | 35.16258 | 1.12168 | .22447 | -.36963 | .00028  | -.00141 | -.01740 |
| .155 | 4.417    | .00000 | 35.15654 | 1.32045 | .24638 | -.37055 | .00083  | -.00067 | -.01558 |
| .155 | 6.401    | .00000 | 35.16256 | 1.50188 | .27450 | -.36976 | .00098  | -.00028 | -.01210 |
| .155 | 8.515    | .00000 | 35.16280 | 1.68194 | .30325 | -.36679 | .00124  | -.00058 | -.01507 |
| .155 | 10.524   | .00000 | 35.17924 | 1.84656 | .33902 | -.36554 | .00163  | -.00099 | -.01612 |
| .155 | 12.528   | .00000 | 35.19752 | 2.00059 | .37611 | -.36899 | .00195  | -.00084 | -.01648 |
| .155 | 14.524   | .00000 | 35.20791 | 2.13934 | .40903 | -.34723 | .00147  | -.00090 | -.01505 |
| .155 | 16.542   | .00000 | 35.26076 | 2.22268 | .44896 | -.31203 | .00107  | .00083  | -.01067 |
| .155 | 18.582   | .00000 | 35.34903 | 2.27863 | .49785 | -.25876 | .00099  | .00405  | -.01004 |
| .156 | 20.572   | .00000 | 35.48792 | 2.27116 | .55295 | -.19872 | .00244  | .00409  | -.01387 |
| .156 | 22.566   | .00000 | 35.66803 | 2.24133 | .61918 | -.14824 | .00256  | .00179  | -.01043 |
| .157 | 24.533   | .00000 | 35.91842 | 2.16808 | .70304 | -.11332 | .00103  | -.00331 | -.00927 |
| .157 | 26.930   | .00000 | 36.25971 | 2.06964 | .81599 | -.05408 | -.00645 | -.01270 | .00142  |
|      | GRADIENT | .00000 | -.00650  | .10527  | .00727 | -.00628 | -.00001 | -.00034 | -.00034 |

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401

(RJF045) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 TORB = 6.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 45/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -2.748   | .00000 | 35.21398 | .47909  | .19956 | .06299  | .00097  | .00063  | -.01739 |
| .155 | .337     | .00000 | 35.17661 | .82772  | .20764 | -.02069 | .00145  | .00057  | -.01619 |
| .155 | 2.336    | .00000 | 35.16444 | 1.03245 | .22193 | -.05042 | .00077  | -.00013 | -.01503 |
| .155 | 4.427    | .00000 | 35.15601 | 1.23891 | .24207 | -.07827 | .00162  | -.00101 | -.01839 |
| .155 | 6.440    | .00000 | 35.15670 | 1.42552 | .26729 | -.09685 | .00182  | -.00063 | -.01428 |
| .155 | 8.408    | .00000 | 35.15561 | 1.60429 | .29393 | -.12957 | .00160  | -.00108 | -.01538 |
| .155 | 10.494   | .00000 | 35.16417 | 1.78789 | .32855 | -.16421 | .00167  | -.00023 | -.01164 |
| .155 | 12.488   | .00000 | 35.17610 | 1.94758 | .36321 | -.19962 | .00201  | -.00187 | -.01649 |
| .155 | 14.588   | .00000 | 35.19703 | 2.10290 | .40321 | -.21647 | .00151  | -.00048 | -.01150 |
| .155 | 16.538   | .00000 | 35.24666 | 2.20018 | .44455 | -.21957 | .00199  | .00002  | -.01104 |
| .155 | 18.558   | .00000 | 35.33029 | 2.25828 | .49189 | -.18598 | .00171  | .00460  | -.00947 |
| .156 | 20.595   | .00000 | 35.47246 | 2.24681 | .54746 | -.12931 | .00110  | .00496  | -.00977 |
| .156 | 22.548   | .00000 | 35.64015 | 2.23012 | .61170 | -.09400 | .00154  | .00169  | -.00801 |
| .157 | 24.604   | .00000 | 35.89955 | 2.17501 | .70331 | -.12425 | .00066  | -.00330 | -.00551 |
| .157 | 26.982   | .00000 | 36.25861 | 2.10619 | .82956 | -.18793 | -.00700 | -.01225 | -.00055 |
|      | GRADIENT | .00000 | -.00812  | .10598  | .00585 | -.01967 | .00006  | -.00023 | -.00005 |

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401

(RJF046) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 IORB = 6.000 ELEVON = .000  
 BOFLAP = -11.700

RUN NO. 46/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -2.742   | .00000 | 35.20608 | .51154  | .19439 | -.08516 | .00098  | .00120  | -.01474 |
| .155 | .350     | .00000 | 35.16827 | .87887  | .20505 | -.17091 | .00135  | -.00023 | -.01612 |
| .155 | 2.330    | .00000 | 35.15871 | 1.09122 | .22117 | -.21212 | .00075  | -.00057 | -.01587 |
| .155 | 4.429    | .00000 | 35.15393 | 1.28855 | .24390 | -.24804 | .00129  | -.00025 | -.01363 |
| .155 | 6.426    | .00000 | 35.15904 | 1.47064 | .27117 | -.27612 | .00145  | -.00075 | -.01720 |
| .155 | 8.516    | .00000 | 35.16195 | 1.67038 | .30373 | -.31494 | .00147  | -.00073 | -.01471 |
| .155 | 10.542   | .00000 | 35.17768 | 1.84011 | .33995 | -.34896 | .00096  | -.00169 | -.01187 |
| .155 | 12.536   | .00000 | 35.18207 | 2.00921 | .37422 | -.38325 | .00118  | -.00212 | -.01317 |
| .155 | 14.600   | .00000 | 35.20709 | 2.14779 | .41326 | -.40131 | .00140  | -.00031 | -.01127 |
| .155 | 16.596   | .00000 | 35.25188 | 2.25242 | .45469 | -.40169 | .00104  | -.00012 | -.01083 |
| .155 | 18.584   | .00000 | 35.35107 | 2.29262 | .50464 | -.36349 | .00120  | .00374  | -.01054 |
| .156 | 20.547   | .00000 | 35.49090 | 2.28669 | .56046 | -.29930 | .00124  | .00346  | -.01099 |
| .156 | 22.562   | .00000 | 35.66462 | 2.26417 | .62571 | -.25175 | .00156  | .00036  | -.01025 |
| .157 | 24.554   | .00000 | 35.93273 | 2.21602 | .72209 | -.27926 | .00068  | -.00310 | -.00727 |
| .157 | 26.965   | .00000 | 36.29230 | 2.14766 | .84821 | -.33113 | -.00734 | -.01253 | .00051  |
|      | GRADIENT | .00000 | -.00733  | .10839  | .00682 | -.02282 | .00002  | -.00021 | .00012  |

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401

(RJF047) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 STAB = 3.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = .000  
 BOFLAP = -11.700

RUN NO. 47/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -2.753   | .00000 | 35.20557 | .54354  | .19484 | -.22272 | .00052  | -.00156 | -.01366 |
| .155 | .277     | .00000 | 35.17276 | .89842  | .20750 | -.30058 | .00059  | -.00076 | -.01636 |
| .155 | 2.361    | .00000 | 35.21922 | 1.11586 | .22528 | -.34466 | .00040  | -.00096 | -.01888 |
| .155 | 4.355    | .00000 | 35.16209 | 1.30308 | .24805 | -.37814 | .00034  | -.00168 | -.01326 |
| .155 | 6.754    | .00000 | 35.24543 | 1.54384 | .27972 | -.41723 | .00066  | -.00127 | -.01352 |
| .155 | 8.332    | .00000 | 35.10284 | 1.68842 | .30486 | -.44644 | .00074  | -.00112 | -.01509 |
| .155 | 10.613   | .00000 | 35.05286 | 1.88632 | .34651 | -.48477 | .00060  | -.00043 | -.01016 |
| .155 | 12.546   | .00000 | 35.11335 | 2.04419 | .38219 | -.51903 | .00099  | -.00107 | -.01266 |
| .156 | 14.644   | .00000 | 35.51464 | 2.17859 | .42423 | -.53899 | .00090  | -.00029 | -.01294 |
| .156 | 16.541   | .00000 | 35.50806 | 2.27217 | .46576 | -.53835 | .00128  | -.00053 | -.01379 |
| .156 | 20.637   | .00000 | 35.66391 | 2.32090 | .57729 | -.42158 | .00083  | .00300  | -.01072 |
| .156 | 22.698   | .00000 | 35.60999 | 2.29684 | .64688 | -.36663 | .00042  | .00093  | -.00888 |
| .155 | 24.603   | .00000 | 35.12522 | 2.23599 | .73645 | -.38793 | .00037  | -.00327 | -.00778 |
| .154 | 26.749   | .00000 | 34.93000 | 2.16983 | .85320 | -.43806 | -.00737 | -.01269 | -.00224 |
|      | GRADIENT | .00000 | -.00360  | .10719  | .00740 | -.02201 | -.00003 | -.00001 | -.00012 |

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401

(RJF048) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 48/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -1.703   | .00000 | 35.22899 | .61852  | .19875 | -.04544 | .00082  | .00029  | -.01800 |
| .155 | .274     | .00000 | 35.22514 | .83845  | .20685 | -.08731 | .00100  | .00005  | -.01640 |
| .155 | 2.396    | .00000 | 35.24297 | 1.06513 | .22261 | -.12558 | .00090  | .00035  | -.01759 |
| .155 | 4.480    | .00000 | 35.28280 | 1.25897 | .24485 | -.15940 | .00116  | -.00120 | -.01929 |
| .155 | 6.452    | .00000 | 35.33088 | 1.45819 | .26828 | -.18932 | .00129  | -.00079 | -.01717 |
| .155 | 8.576    | .00000 | 35.40639 | 1.65337 | .29947 | -.22608 | .00105  | -.00156 | -.01392 |
| .155 | 9.530    | .00000 | 35.29401 | 1.72771 | .31615 | -.23836 | .00140  | -.00083 | -.01425 |
| .155 | 10.578   | .00000 | 35.23659 | 1.82752 | .33375 | -.26109 | .00110  | -.00161 | -.01287 |
| .155 | 11.582   | .00000 | 35.26261 | 1.90611 | .35237 | -.27624 | .00131  | -.00239 | -.01528 |
| .155 | 12.627   | .00000 | 35.34971 | 1.98053 | .37237 | -.29311 | .00098  | -.00114 | -.01389 |
| .155 | 13.602   | .00000 | 35.12624 | 2.05556 | .38966 | -.30320 | .00165  | -.00171 | -.01743 |
| .155 | 14.745   | .00000 | 35.16069 | 2.12466 | .41154 | -.30932 | .00138  | -.00164 | -.01489 |
| .155 | 15.533   | .00000 | 35.23852 | 2.16534 | .42536 | -.31166 | .00143  | -.00126 | -.01476 |
| .155 | 16.670   | .00000 | 35.32267 | 2.21661 | .45100 | -.30854 | .00161  | .00016  | -.01368 |
| .156 | 17.490   | .00000 | 35.42769 | 2.24808 | .47087 | -.30369 | .00199  | -.00050 | -.01612 |
| .156 | 18.586   | .00000 | 35.53566 | 2.26879 | .49624 | -.27560 | .00143  | .00330  | -.01576 |
| .156 | 19.627   | .00000 | 35.65689 | 2.26750 | .52525 | -.24403 | .00112  | .00420  | -.01359 |
| .156 | 20.627   | .00000 | 35.67188 | 2.26543 | .55424 | -.20960 | .00087  | .00387  | -.01391 |
| .156 | 21.572   | .00000 | 35.70032 | 2.26500 | .58566 | -.18871 | .00122  | .00203  | -.01259 |
| .156 | 22.666   | .00000 | 35.66216 | 2.25460 | .62463 | -.17441 | .00114  | .00048  | -.01023 |
| .156 | 23.697   | .00000 | 35.64056 | 2.21878 | .67129 | -.18168 | .00167  | -.00288 | -.00985 |
| .156 | 24.696   | .00000 | 35.59403 | 2.18928 | .71953 | -.20922 | .00008  | -.00464 | -.00913 |
| .156 | 25.598   | .00000 | 35.60806 | 2.17179 | .76470 | -.23755 | -.00061 | -.00343 | -.00730 |
| .156 | 26.782   | .00000 | 35.62460 | 2.12835 | .83186 | -.25917 | -.00743 | -.01226 | .00015  |
|      | GRADIENT | .00000 | .00872   | .10388  | .00747 | -.01838 | .00004  | -.00020 | -.00025 |



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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401

(RJF049) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = 17.000  
 TORB = 6.000 ELEVON = -5.000  
 BDFLAP = -11.700

RUN NO. 49/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -1.868   | .00000 | 35.18235 | .67345  | .20203 | -.46176 | -.00004 | .00024  | -.00837 |
| .155 | .318     | .00000 | 35.08949 | .94231  | .21285 | -.52598 | -.00039 | -.00134 | -.01110 |
| .155 | 2.397    | .00000 | 35.17303 | 1.14712 | .23185 | -.56880 | -.00021 | -.00126 | -.01056 |
| .155 | 4.467    | .00000 | 35.38527 | 1.35995 | .25528 | -.60630 | .00047  | -.00120 | -.01138 |
| .155 | 6.577    | .00000 | 35.39016 | 1.56812 | .28445 | -.64095 | .00065  | -.00112 | -.01028 |
| .156 | 8.604    | .00000 | 35.45403 | 1.75322 | .31790 | -.67996 | .00081  | -.00180 | -.01028 |
| .156 | 10.450   | .00000 | 35.48895 | 1.90755 | .35368 | -.71153 | .00033  | -.00168 | -.00631 |
| .156 | 12.485   | .00000 | 35.58514 | 2.07995 | .39387 | -.75518 | .00069  | -.00198 | -.00740 |
| .156 | 14.622   | .00000 | 35.61528 | 2.22734 | .43448 | -.77609 | .00135  | -.00033 | -.01053 |
| .157 | 16.582   | .00000 | 35.90847 | 2.31136 | .47955 | -.77215 | .00052  | .00024  | -.00592 |
| .157 | 18.652   | .00000 | 36.08509 | 2.36017 | .53244 | -.71602 | .00020  | .00519  | -.00501 |
| .156 | 20.659   | .01000 | 35.48423 | 2.35100 | .59026 | -.62483 | .00018  | .00497  | -.00593 |
| .156 | 22.606   | .01000 | 35.50811 | 2.32275 | .65377 | -.54084 | .00049  | .00157  | -.00557 |
| .156 | 24.674   | .01000 | 35.54359 | 2.24591 | .74421 | -.51214 | .00006  | -.00297 | -.00429 |
| .156 | 26.740   | .01000 | 35.52165 | 2.18935 | .86002 | -.54752 | -.00676 | -.01283 | .00418  |
|      | GRADIENT | .00000 | .03242   | .10747  | .00846 | -.02263 | .00004  | -.00020 | -.00041 |

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CA-8 - FORCE SOURCE DATA TABULATION

PAGE 49

(CA-8) K3V9.1.2TS5H15.6.1F3005.3.5TS401

(RJF050) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = 10.000  
 IORB = 6.000 ELEVON = -5.000  
 BOFLAP = -11.700

| RUN NO. | 50/ C    | RN/L = | .00      | GRADIENT INTERVAL = | -5.00/ | 5.00    |         |         |         |
|---------|----------|--------|----------|---------------------|--------|---------|---------|---------|---------|
| MACH    | ALPHAW   | BETA   | Q(PSF)   | CL                  | CD     | CLM     | CLN     | CSL     | CY      |
| .155    | -1.741   | .00000 | 35.25385 | .64607              | .20055 | -.29648 | .00061  | -.00075 | -.01297 |
| .155    | .295     | .00000 | 35.07168 | .87861              | .21094 | -.35330 | .00056  | -.00047 | -.01015 |
| .155    | 2.478    | .00000 | 35.21365 | 1.11242             | .22903 | -.39847 | .00035  | -.00049 | -.01031 |
| .155    | 4.375    | .00000 | 35.27494 | 1.29668             | .24969 | -.43293 | .00040  | -.00153 | -.01004 |
| .155    | 6.464    | .00000 | 35.32031 | 1.50476             | .27742 | -.46694 | .00055  | -.00267 | -.00943 |
| .155    | 8.524    | .00000 | 35.38396 | 1.69381             | .31029 | -.50465 | .00061  | -.00092 | -.00633 |
| .156    | 10.594   | .00000 | 35.42291 | 1.88304             | .34664 | -.54395 | .00101  | -.00076 | -.00796 |
| .155    | 12.450   | .00000 | 35.24868 | 2.03661             | .38225 | -.57965 | .00067  | -.00235 | -.00593 |
| .155    | 14.539   | .00000 | 35.32339 | 2.17457             | .42177 | -.60211 | .00097  | -.00105 | -.00626 |
| .156    | 16.581   | .01000 | 35.53896 | 2.27607             | .46561 | -.60304 | .00048  | -.00090 | -.00675 |
| .156    | 18.641   | .01000 | 35.54409 | 2.32387             | .51890 | -.55760 | .00099  | .00315  | -.00727 |
| .155    | 20.657   | .01000 | 35.31376 | 2.32069             | .57537 | -.46927 | .00049  | .00544  | -.00402 |
| .155    | 22.596   | .01000 | 35.34456 | 2.29253             | .63874 | -.39518 | .00050  | .00265  | -.00242 |
| .155    | 24.519   | .01000 | 35.37148 | 2.22409             | .72159 | -.38452 | -.00045 | -.00201 | .00087  |
| .157    | 26.752   | .01000 | 35.96502 | 2.16665             | .84824 | -.43719 | -.00738 | -.01190 | .00557  |
|         | GRADIENT | .00000 | .01000   | .10652              | .00804 | -.02216 | -.00004 | -.00011 | .00042  |

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## CA-8 - FORCE SOURCE DATA TABULATION

PAGE 50

(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401

(RJF051) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -10.000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = -11.700

RUN NO. 51/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MAGH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .154 | -1.796   | .00000 | 34.90057 | .53918  | .20474 | .14338  | .00034  | .00220  | -.00779 |
| .155 | .312     | .00000 | 35.02049 | .76793  | .21224 | .10575  | .00078  | .00056  | -.00962 |
| .156 | 2.352    | .00000 | 35.44116 | .97348  | .22537 | .07525  | .00098  | -.00010 | -.01112 |
| .155 | 4.309    | .00000 | 35.25457 | 1.17585 | .24113 | .04976  | .00121  | -.00052 | -.01361 |
| .155 | 6.422    | .00000 | 35.15756 | 1.37974 | .26432 | .02465  | .00136  | -.00041 | -.01255 |
| .155 | 8.559    | .00000 | 35.06445 | 1.58102 | .29277 | -.00909 | .00125  | .00101  | -.00644 |
| .155 | 10.552   | .00000 | 35.17780 | 1.73879 | .32862 | -.03340 | .00053  | -.00075 | -.00498 |
| .155 | 12.519   | .01000 | 35.15360 | 1.91672 | .35782 | -.06932 | .00213  | -.00176 | -.01455 |
| .155 | 14.491   | .01000 | 35.22766 | 2.04320 | .39311 | -.08291 | .00108  | .00088  | -.00544 |
| .155 | 16.565   | .01000 | 35.36576 | 2.14496 | .43417 | -.08513 | .00056  | .00039  | -.00616 |
| .155 | 18.465   | .01000 | 35.22687 | 2.20305 | .47722 | -.05262 | .00075  | .00372  | -.00624 |
| .155 | 20.559   | .01000 | 35.36307 | 2.20085 | .53258 | .00898  | .00074  | .00619  | -.00784 |
| .155 | 22.488   | .01000 | 35.36310 | 2.19113 | .59433 | .03668  | .00114  | .00215  | -.00635 |
| .156 | 24.495   | .01000 | 35.62381 | 2.13934 | .68155 | -.00471 | .00039  | -.00283 | -.00275 |
| .157 | 26.803   | .01000 | 36.08379 | 2.07963 | .81115 | -.09770 | -.00733 | -.01263 | .00407  |
|      | GRADIENT | .00000 | .07341   | .10395  | .00595 | -.01531 | .00014  | -.00045 | -.00093 |

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CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401

(RJF052) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -23.000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = -11.700

RUN NO. 52/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -1.865   | .00000 | 35.02065 | .46452  | .21541 | .37895  | .00109  | .00029  | -.00906 |
| .155 | .297     | .00000 | 35.13168 | .71392  | .21911 | .34069  | .00134  | .00023  | -.01323 |
| .155 | 2.363    | .00000 | 35.16184 | .92784  | .22924 | .31156  | .00126  | .00026  | -.01149 |
| .155 | 4.374    | .00000 | 35.24679 | 1.12546 | .24439 | .28714  | .00187  | .00104  | -.01120 |
| .155 | 6.445    | .00000 | 35.28496 | 1.31652 | .26674 | .26940  | .00196  | -.00032 | -.01279 |
| .155 | 8.542    | .00000 | 35.20723 | 1.49941 | .29413 | .25166  | .00190  | -.00079 | -.00955 |
| .155 | 10.457   | .01000 | 35.25196 | 1.68149 | .32133 | .22378  | .00195  | -.00054 | -.00928 |
| .155 | 12.266   | .00000 | 35.05603 | 1.81265 | .35094 | .20311  | .00126  | -.00118 | -.00699 |
| .155 | 14.519   | .01000 | 35.04991 | 1.97360 | .38555 | .19375  | .00155  | .00035  | -.00921 |
| .155 | 16.549   | .01000 | 35.21771 | 2.06984 | .42360 | .19972  | .00166  | .00081  | -.00856 |
| .155 | 18.517   | .01000 | 35.39388 | 2.13085 | .46501 | .23411  | .00102  | .00491  | -.00520 |
| .156 | 20.458   | .01000 | 35.61207 | 2.13219 | .51403 | .26614  | .00134  | .00572  | -.00731 |
| .156 | 22.594   | .01000 | 35.55941 | 2.12881 | .58207 | .30198  | .00107  | .00332  | -.00213 |
| .156 | 24.517   | .01000 | 35.54602 | 2.08135 | .66674 | .23144  | -.00019 | -.00176 | -.00076 |
| .156 | 26.809   | .01000 | 35.56749 | 2.02311 | .79324 | .12220  | -.00764 | -.01206 | .00595  |
|      | GRADIENT | .00000 | .03414   | .10576  | .00465 | -.01467 | .00011  | .00011  | -.00023 |

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401

(RJF053) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = -11.700

RUN NO. 53/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -1.814   | .00000 | 35.13100 | .56277  | .20252 | .02516  | .00059  | -.00089 | -.01284 |
| .155 | .231     | .00000 | 35.14267 | .79178  | .20980 | -.02562 | .00115  | .00132  | -.01108 |
| .155 | 2.391    | .00000 | 35.14327 | 1.02013 | .22431 | -.06448 | .00094  | -.00021 | -.01404 |
| .155 | 4.401    | .00000 | 35.17724 | 1.21270 | .24314 | -.08795 | .00094  | -.00153 | -.01370 |
| .155 | 6.492    | .00000 | 35.22020 | 1.41984 | .26802 | -.11365 | .00135  | -.00127 | -.01246 |
| .155 | 8.482    | .00000 | 35.15987 | 1.60004 | .29728 | -.14339 | .00120  | -.00120 | -.00920 |
| .155 | 10.523   | .01000 | 35.24954 | 1.78162 | .33124 | -.17543 | .00100  | -.00060 | -.00352 |
| .155 | 12.663   | .01000 | 35.26349 | 1.95415 | .36912 | -.21135 | .00113  | -.00176 | -.00913 |
| .155 | 14.528   | .00000 | 35.40629 | 2.08467 | .40035 | -.22736 | .00089  | -.00091 | -.00978 |
| .155 | 16.563   | .01000 | 35.13933 | 2.18516 | .43977 | -.23023 | .00083  | .00064  | -.00699 |
| .155 | 18.571   | .01000 | 35.34555 | 2.23045 | .48744 | -.19030 | .00083  | .00396  | -.00579 |
| .156 | 20.553   | .01000 | 35.51965 | 2.23643 | .54312 | -.13158 | .00021  | .00684  | -.00525 |
| .156 | 22.571   | .01000 | 35.50699 | 2.22116 | .60828 | -.08710 | .00129  | .00184  | -.00608 |
| .156 | 24.545   | .01000 | 35.58567 | 2.16811 | .69514 | -.10942 | -.00057 | -.00215 | -.00039 |
| .156 | 26.752   | .01000 | 35.73432 | 2.10117 | .81644 | -.17601 | -.00709 | -.01330 | .00278  |
|      | GRADIENT | .00000 | .00666   | .10471  | .00655 | -.01817 | .00004  | -.00017 | -.00027 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401

(RJF054) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 TORB = 6.000 ELEVON = -5.000  
 BDFLAP = -11.700

| RUN NO.  | 54/ 0  | RN/L = | .00      | GRADIENT | INTERVAL = | -5.00/  | 5.00    |         |         |
|----------|--------|--------|----------|----------|------------|---------|---------|---------|---------|
| MACH     | ALPHAW | BETA   | O (PSF)  | CL       | CD         | CLM     | CLN     | CSL     | CY      |
| .155     | -1.734 | .00000 | 35.05022 | .58270   | .20011     | -.05534 | .00070  | .00126  | -.01068 |
| .155     | .265   | .00000 | 35.09242 | .81962   | .20759     | -.09923 | .00090  | .00023  | -.01343 |
| .155     | 2.282  | .01000 | 35.06386 | 1.02891  | .22215     | -.13554 | .00093  | -.00070 | -.01429 |
| .155     | 4.388  | .01000 | 35.22876 | 1.23322  | .24270     | -.16832 | .00120  | -.00037 | -.01302 |
| .155     | 5.492  | .00000 | 35.28279 | 1.34525  | .25592     | -.18765 | .00107  | -.00164 | -.01394 |
| .155     | 6.380  | .01000 | 35.23515 | 1.43875  | .26658     | -.20006 | .00158  | -.00112 | -.01337 |
| .155     | 7.533  | .01000 | 35.26540 | 1.52567  | .28491     | -.21405 | .00151  | -.00159 | -.01072 |
| .155     | 8.482  | .01000 | 35.36571 | 1.63038  | .29889     | -.23402 | .00156  | -.00050 | -.01063 |
| .155     | 9.524  | .01000 | 35.06679 | 1.72126  | .31542     | -.25228 | .00162  | -.00107 | -.01140 |
| .155     | 10.502 | .01000 | 35.06894 | 1.81099  | .33212     | -.27108 | .00134  | -.00158 | -.01208 |
| .155     | 11.584 | .01000 | 35.15535 | 1.88460  | .35439     | -.28594 | .00111  | -.00134 | -.00789 |
| .155     | 12.519 | .01000 | 35.07567 | 1.96925  | .36812     | -.30467 | .00165  | -.00114 | -.01311 |
| .155     | 13.557 | .01000 | 35.17053 | 2.04301  | .38830     | -.31861 | .00115  | -.00117 | -.01012 |
| .155     | 14.517 | .01000 | 35.21233 | 2.11029  | .40598     | -.32348 | .00049  | .00012  | -.00532 |
| .155     | 15.532 | .01000 | 35.29940 | 2.16078  | .42566     | -.32637 | .00013  | .00011  | -.00408 |
| .155     | 16.604 | .01000 | 35.23136 | 2.21739  | .44707     | -.32378 | .00100  | -.00005 | -.00897 |
| .155     | 17.515 | .01000 | 35.37007 | 2.24556  | .46998     | -.31212 | .00121  | .00138  | -.00945 |
| .155     | 18.504 | .01000 | 35.26153 | 2.25444  | .49141     | -.28356 | .00049  | .00580  | -.00623 |
| .155     | 19.820 | .01000 | 35.36490 | 2.25788  | .52786     | -.23913 | .00024  | .00504  | -.00841 |
| .155     | 21.702 | .01000 | 35.38555 | 2.25487  | .58609     | -.18473 | .00020  | .00448  | -.00287 |
| .155     | 22.635 | .01000 | 35.37342 | 2.24037  | .61826     | -.16246 | .00073  | .00135  | -.00414 |
| .155     | 23.622 | .01000 | 35.36748 | 2.20966  | .65943     | -.16353 | .00054  | -.00150 | -.00362 |
| .156     | 24.588 | .01000 | 35.55086 | 2.17919  | .70311     | -.18580 | -.00048 | -.00145 | -.00319 |
| .157     | 25.455 | .01000 | 36.00397 | 2.16035  | .74970     | -.21733 | -.00077 | -.00306 | -.00102 |
| .157     | 26.743 | .01000 | 35.97048 | 2.11945  | .82670     | -.25346 | -.00759 | -.01171 | .00646  |
| GRADIENT |        | .00196 | .02508   | .10596   | .00700     | -.01939 | .00007  | -.00028 | -.00038 |

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CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F3005.3.5TS401

(RJF055) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BOFLAP = -11.700

| RUN NO. | 55/ 0    | RN/L = | .00      | GRADIENT INTERVAL = | -5.00/ 5.00 |         |         |         |         |
|---------|----------|--------|----------|---------------------|-------------|---------|---------|---------|---------|
| MACH    | ALPHAW   | BETA   | Q(PSF)   | CL                  | CD          | CLM     | CLN     | CSL     | CY      |
| .155    | -1.801   | .00000 | 35.17132 | .61153              | .19768      | -.14108 | .00047  | .00161  | -.00928 |
| .155    | .208     | .00000 | 35.11844 | .84070              | .20640      | -.18995 | .00097  | .00067  | -.01307 |
| .155    | 2.297    | .01000 | 35.11554 | 1.05626             | .22254      | -.23076 | .00048  | -.00031 | -.01290 |
| .155    | 4.405    | .01000 | 35.21423 | 1.26409             | .24373      | -.26809 | .00085  | -.00064 | -.01400 |
| .155    | 6.340    | .01000 | 35.23935 | 1.44985             | .26925      | -.29750 | .00098  | -.00142 | -.01146 |
| .155    | 8.436    | .01000 | 35.21882 | 1.65916             | .30006      | -.33584 | .00123  | -.00122 | -.01194 |
| .155    | 10.462   | .01000 | 35.02432 | 1.83383             | .33448      | -.37182 | .00069  | -.00233 | -.01030 |
| .155    | 12.581   | .01000 | 35.01915 | 2.00236             | .37472      | -.40766 | .00095  | -.00130 | -.00785 |
| .155    | 14.534   | .01000 | 35.24808 | 2.12874             | .41091      | -.42597 | .00132  | -.00061 | -.01052 |
| .155    | 16.509   | .01000 | 35.36923 | 2.23265             | .44970      | -.42678 | .00113  | -.00041 | -.01002 |
| .156    | 18.526   | .01000 | 35.65559 | 2.27781             | .49990      | -.38534 | .00067  | .00307  | -.00560 |
| .155    | 20.551   | .01000 | 35.44963 | 2.28959             | .55938      | -.31765 | .00028  | .00490  | -.00548 |
| .156    | 22.521   | .01000 | 35.50595 | 2.25806             | .62206      | -.25002 | .00061  | .00165  | -.00600 |
| .156    | 24.510   | .01000 | 35.52100 | 2.20050             | .70901      | -.26799 | -.00043 | -.00258 | -.00246 |
| .157    | 26.730   | .01000 | 36.06449 | 2.13951             | .83471      | -.32882 | -.00745 | -.01222 | .00436  |
|         | GRADIENT | .00193 | .00624   | .10491              | .00746      | -.02036 | .00003  | -.00037 | -.00067 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5

F30G5.3.5TS401

(RJF056) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 IORB = 6.000 ELEVON = -5.000  
 SPDBRK = -11.700

| RUN NO. 56/ 0 |          | RN/L = .00 |          | GRADIENT INTERVAL = -5.00/ 5.00 |        |         |         |         |         |
|---------------|----------|------------|----------|---------------------------------|--------|---------|---------|---------|---------|
| MACH          | ALPHAW   | BETA       | Q(PSF)   | CL                              | CD     | CLM     | CLN     | CSL     | CY      |
| .155          | -1.752   | .00000     | 35.23136 | .65890                          | .19576 | -.31186 | .00101  | .00181  | -.01010 |
| .155          | .256     | .00000     | 35.18901 | .87723                          | .20555 | -.33169 | .00095  | .00097  | -.01083 |
| .155          | 2.349    | .00000     | 35.14348 | 1.09C28                         | .22145 | -.33345 | .00047  | -.00006 | -.01587 |
| .155          | 4.491    | .00000     | 35.24478 | 1.28854                         | .24317 | -.33347 | .00112  | -.00013 | -.01431 |
| .155          | 5.527    | .00000     | 35.28830 | 1.38057                         | .25659 | -.33346 | .00132  | -.00124 | -.01406 |
| .155          | 6.406    | .00000     | 35.25387 | 1.46483                         | .26787 | -.33301 | .00163  | .00011  | -.00990 |
| .155          | 7.493    | .00000     | 35.04027 | 1.56083                         | .28185 | -.33543 | .00166  | -.00093 | -.01209 |
| .154          | 8.513    | .00000     | 35.01762 | 1.65493                         | .29773 | -.33315 | .00169  | -.00021 | -.01142 |
| .155          | 9.459    | .00000     | 35.05677 | 1.72896                         | .31292 | -.33487 | .00133  | -.00085 | -.01150 |
| .155          | 10.474   | .00000     | 35.07669 | 1.81471                         | .32956 | -.33598 | .00151  | -.00055 | -.01100 |
| .155          | 11.435   | .00000     | 35.13122 | 1.89054                         | .34586 | -.33341 | .00106  | -.00112 | -.01004 |
| .155          | 12.444   | .00000     | 35.12302 | 1.97216                         | .36156 | -.33551 | .00156  | -.00080 | -.01169 |
| .155          | 13.345   | .00000     | 35.22669 | 2.02958                         | .37871 | -.33252 | .00098  | -.00001 | -.00723 |
| .155          | 14.500   | .00000     | 35.21342 | 2.10049                         | .39795 | -.31385 | .00073  | -.00041 | -.00919 |
| .155          | 15.542   | .00000     | 35.26084 | 2.15009                         | .41790 | -.30201 | .00069  | -.00005 | -.01116 |
| .155          | 16.518   | .00000     | 35.23855 | 2.18952                         | .43748 | -.28485 | .00038  | .00059  | -.00811 |
| .155          | 17.494   | .00000     | 35.30951 | 2.22419                         | .45748 | -.26202 | .00038  | .00217  | -.00777 |
| .155          | 18.582   | .00000     | 35.38348 | 2.24032                         | .48472 | -.23050 | .00020  | .00450  | -.00624 |
| .156          | 19.600   | .00000     | 35.52514 | 2.24733                         | .51400 | -.20467 | .00068  | .00478  | -.00732 |
| .155          | 20.567   | .00000     | 35.32848 | 2.24745                         | .54124 | -.17310 | .00142  | .00571  | -.00944 |
| .155          | 21.623   | .00000     | 35.38955 | 2.23694                         | .57392 | -.14264 | .00208  | .00357  | -.01033 |
| .155          | 22.575   | .00000     | 35.40364 | 2.22403                         | .60702 | -.12266 | .00266  | .00107  | -.01250 |
| .155          | 23.567   | .00000     | 35.38535 | 2.19749                         | .64748 | -.10424 | .00255  | -.00075 | -.01156 |
| .155          | 24.587   | .00000     | 35.31307 | 2.15169                         | .69230 | -.08857 | .00121  | -.00143 | -.00971 |
| .157          | 25.613   | .00000     | 35.98503 | 2.12258                         | .74090 | -.07903 | -.00026 | -.00162 | -.00400 |
| .157          | 26.692   | .00000     | 36.08571 | 2.05874                         | .79867 | -.04071 | -.00695 | -.01182 | -.00158 |
|               | GRADIENT | .00000     | -.00004  | .10090                          | .00761 | -.00427 | -.00001 | -.00033 | -.00085 |



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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5

F30G5.3.5TS401

(RJF057) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 TORB = 8.000 ELEVON = -5.000  
 SPDBRK = -11.700

| RUN NO. 57/ 0 |        | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |        |         |         |         |         |
|---------------|--------|------------|---------------------------------|---------|--------|---------|---------|---------|---------|
| MACH          | ALPHAW | BETA       | Q(PSF)                          | CL      | CD     | CLM     | CLN     | CSL     | CY      |
| .155          | -1.701 | .00000     | 35.29772                        | .68894  | .19623 | -.31482 | .00116  | .00141  | -.00708 |
| .155          | .341   | .00000     | 35.16368                        | .91389  | .20653 | -.33603 | .00119  | .00076  | -.00808 |
| .155          | 2.338  | .00000     | 35.13130                        | 1.11134 | .22348 | -.34411 | .00120  | -.00010 | -.01036 |
| .155          | 4.404  | .00000     | 35.21231                        | 1.32218 | .24565 | -.34554 | .00195  | -.00120 | -.01185 |
| .155          | 5.423  | .00000     | 35.21922                        | 1.41703 | .25915 | -.34359 | .00217  | -.00075 | -.01228 |
| .155          | 6.606  | .00000     | 35.29012                        | 1.51820 | .27530 | -.34233 | .00240  | -.00050 | -.01265 |
| .155          | 7.435  | .00000     | 35.30276                        | 1.57564 | .28937 | -.33942 | .00202  | -.00114 | -.00615 |
| .155          | 8.510  | .00000     | 35.38526                        | 1.68818 | .30472 | -.34083 | .00249  | -.00011 | -.01077 |
| .155          | 9.387  | .00000     | 35.43734                        | 1.75306 | .32047 | -.33821 | .00219  | -.00065 | -.00929 |
| .155          | 10.412 | .00000     | 35.38259                        | 1.84254 | .33752 | -.33890 | .00237  | -.00067 | -.01151 |
| .155          | 11.577 | .00000     | 35.24162                        | 1.93961 | .35833 | -.34001 | .00236  | -.00020 | -.00920 |
| .155          | 12.290 | .00000     | 35.21244                        | 1.99606 | .37085 | -.33784 | .00187  | -.00083 | -.00644 |
| .155          | 13.518 | .00000     | 35.25140                        | 2.08564 | .39166 | -.33043 | .00238  | .00042  | -.00758 |
| .155          | 14.608 | .00000     | 35.30853                        | 2.13865 | .41288 | -.31804 | .00153  | -.00042 | -.00630 |
| .155          | 15.559 | .00000     | 35.23214                        | 2.17855 | .43044 | -.30207 | .00111  | .00005  | -.00590 |
| .155          | 16.550 | .00000     | 35.30132                        | 2.22178 | .45157 | -.28323 | .00046  | .00140  | -.00304 |
| .155          | 17.600 | .00000     | 35.40086                        | 2.25823 | .47706 | -.26054 | .00051  | .00253  | -.00435 |
| .155          | 18.681 | .00000     | 35.24985                        | 2.27237 | .50588 | -.22923 | .00065  | .00377  | -.00792 |
| .155          | 19.581 | .00000     | 35.35856                        | 2.27711 | .53133 | -.20165 | .00084  | .00624  | -.00335 |
| .155          | 20.557 | .00000     | 35.40976                        | 2.27747 | .56245 | -.17678 | .00075  | .00755  | -.00647 |
| .155          | 21.605 | .00000     | 35.38242                        | 2.27111 | .59697 | -.14730 | .00125  | .00467  | -.00992 |
| .155          | 22.610 | .00000     | 35.36227                        | 2.25779 | .63288 | -.12462 | .00213  | .00198  | -.01023 |
| .156          | 23.610 | .00000     | 35.62406                        | 2.23056 | .67547 | -.10112 | .00169  | -.00171 | -.00775 |
| .156          | 24.595 | .00000     | 35.59081                        | 2.19406 | .72081 | -.08114 | .00098  | -.00323 | -.00690 |
| .156          | 25.575 | .00000     | 35.65196                        | 2.16182 | .76483 | -.06769 | .00001  | -.00265 | -.00732 |
| .157          | 26.609 | .00000     | 36.07122                        | 2.11075 | .82310 | -.02116 | -.00675 | -.01202 | .00201  |
| GRADIENT      |        | .00000     | -.01414                         | .10325  | .00814 | -.00493 | .00012  | -.00043 | -.00082 |

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401

(RJF058) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 TORB = 8.000 ELEVON = -5.000  
 BDFLAP = -11.700

RUN NO. 58/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -1.806   | .00000 | 35.21958 | .56767  | .20148 | .05994  | .00073  | -.00100 | -.01382 |
| .155 | .229     | .00000 | 35.11352 | .81124  | .20870 | .00699  | .00141  | .00184  | -.00657 |
| .155 | 2.381    | .00000 | 35.12763 | 1.02762 | .22458 | -.02794 | .00133  | -.00004 | -.01389 |
| .155 | 4.565    | .00000 | 35.14439 | 1.24464 | .24622 | -.05293 | .00188  | -.00113 | -.01419 |
| .155 | 6.433    | .00000 | 35.23277 | 1.42553 | .26985 | -.07387 | .00171  | -.00143 | -.00953 |
| .155 | 8.531    | .00000 | 35.22587 | 1.62685 | .30110 | -.10914 | .00182  | -.00176 | -.01009 |
| .155 | 10.321   | .00000 | 35.15920 | 1.77836 | .33303 | -.13876 | .00150  | -.00130 | -.00792 |
| .155 | 12.420   | .00000 | 35.17206 | 1.94936 | .37013 | -.17147 | .00214  | -.00086 | -.00950 |
| .155 | 14.535   | .00000 | 35.32522 | 2.09186 | .40805 | -.18755 | .00149  | .00038  | -.00720 |
| .155 | 16.666   | .00000 | 35.28912 | 2.20518 | .45114 | -.18345 | .00239  | .00027  | -.01312 |
| .156 | 18.476   | .00000 | 35.59415 | 2.24239 | .49704 | -.14533 | .00070  | .00377  | -.00441 |
| .155 | 20.490   | .00000 | 35.35978 | 2.25976 | .55631 | -.09578 | .00032  | .00518  | -.00656 |
| .155 | 22.514   | .00000 | 35.39271 | 2.24506 | .62696 | -.05354 | .00068  | .00130  | -.00812 |
| .155 | 24.449   | .00000 | 35.34633 | 2.20341 | .71320 | -.07353 | .00059  | -.00276 | -.00848 |
| .155 | 26.516   | .00000 | 35.32706 | 2.14576 | .82731 | -.11344 | -.00593 | -.01108 | -.00024 |
|      | GRADIENT | .00000 | -.00972  | .10560  | .00708 | -.01751 | .00016  | -.00011 | -.00041 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401

(RJF059) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 IORB = 8.000 ELEVON = -5.000  
 BDFLAP = -11.700

| RUN NO. 59/ 0 |          | RN/L = .00 |          | GRADIENT INTERVAL = -5.00/ 5.00 |        |         |         |         |         |
|---------------|----------|------------|----------|---------------------------------|--------|---------|---------|---------|---------|
| MACH          | ALPHAW   | BETA       | Q(PSF)   | CL                              | CO     | CLM     | CLN     | CSL     | CY      |
| .155          | -2.703   | .00000     | 35.35345 | .50422                          | .19478 | -.06388 | .00073  | .00012  | -.00694 |
| .155          | .404     | .00000     | 35.23844 | .87078                          | .20699 | -.14857 | .00115  | .00081  | -.01055 |
| .155          | 2.458    | .00000     | 35.27754 | 1.08414                         | .22402 | -.18834 | .00101  | .00066  | -.01024 |
| .155          | 4.381    | .00000     | 35.32075 | 1.27829                         | .24471 | -.21781 | .00131  | -.00170 | -.01015 |
| .156          | 6.455    | .00000     | 35.59560 | 1.48345                         | .27200 | -.24681 | .00179  | -.00084 | -.00971 |
| .155          | 8.567    | .00000     | 35.21986 | 1.66647                         | .30742 | -.27898 | .00111  | -.00105 | -.00655 |
| .155          | 10.452   | .00000     | 35.20547 | 1.84573                         | .33965 | -.31249 | .00170  | -.00166 | -.00956 |
| .155          | 12.488   | .00000     | 35.32614 | 2.00031                         | .37860 | -.34714 | .00090  | -.00239 | -.00661 |
| .155          | 14.621   | .00000     | 35.33699 | 2.14835                         | .42040 | -.36436 | .00176  | -.00042 | -.00909 |
| .155          | 16.665   | .00000     | 35.43691 | 2.24059                         | .46482 | -.35975 | .00078  | .00127  | -.00543 |
| .155          | 18.579   | .00000     | 35.44226 | 2.28833                         | .51477 | -.31982 | .00022  | .00462  | -.00600 |
| .156          | 20.493   | .00000     | 35.56394 | 2.29993                         | .57041 | -.26220 | .00040  | .00400  | -.00956 |
| .156          | 22.510   | .00000     | 35.55683 | 2.28598                         | .64137 | -.20862 | .00028  | .00145  | -.00877 |
| .156          | 24.521   | .00000     | 35.52563 | 2.23536                         | .73450 | -.22445 | .00014  | -.00340 | -.00941 |
| .155          | 26.476   | .00000     | 35.43957 | 2.17775                         | .84477 | -.25684 | -.00626 | -.01336 | -.00089 |
|               | GRADIENT | .00000     | -.00445  | .10932                          | .00696 | -.02186 | .00007  | -.00024 | -.00044 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401

(RJF060) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IOR8 = 8.000 ELEVON = -5.000  
 BDFLAP = -11.700

| RUN NO. |          | 60/ 0  | RN/L =   | .00     | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |  |
|---------|----------|--------|----------|---------|---------------------------------|---------|---------|---------|---------|--|
| MACH    | ALPHA    | BETA   | Q(PSF)   | CL      | CD                              | CLM     | CLN     | CSL     | CY      |  |
| .155    | -2.717   | .00000 | 35.36500 | .48215  | .19811                          | .00801  | .00053  | .00099  | -.00578 |  |
| .155    | .306     | .00000 | 35.18344 | .83812  | .20815                          | -.07111 | .00087  | .00087  | -.00990 |  |
| .155    | 2.325    | .00000 | 35.19965 | 1.04539 | .22449                          | -.10167 | .00143  | -.00110 | -.01208 |  |
| .154    | 4.383    | .00000 | 35.15003 | 1.24964 | .24447                          | -.13643 | .00162  | -.00142 | -.00868 |  |
| .155    | 6.432    | .00000 | 35.21731 | 1.44356 | .27146                          | -.16551 | .00163  | -.00093 | -.00914 |  |
| .155    | 8.440    | .00000 | 35.21958 | 1.63801 | .30235                          | -.19615 | .00173  | -.00109 | -.00988 |  |
| .154    | 10.527   | .00000 | 35.15492 | 1.82124 | .33763                          | -.23025 | .00181  | -.00079 | -.00845 |  |
| .155    | 12.508   | .00000 | 35.17462 | 1.98495 | .37346                          | -.26338 | .00120  | -.00227 | -.00717 |  |
| .154    | 14.540   | .00000 | 35.00046 | 2.11795 | .41315                          | -.27857 | .00141  | -.00039 | -.00522 |  |
| .155    | 16.561   | .00000 | 35.51617 | 2.21089 | .45687                          | -.27548 | .00041  | .00066  | -.00395 |  |
| .155    | 18.527   | .00000 | 35.36395 | 2.26924 | .50496                          | -.23859 | .00104  | .00212  | -.00717 |  |
| .155    | 20.581   | .00000 | 35.48643 | 2.27588 | .56660                          | -.18233 | .00070  | .00369  | -.00998 |  |
| .155    | 22.590   | .00000 | 35.47602 | 2.26066 | .63609                          | -.13452 | .00128  | .00079  | -.00823 |  |
| .156    | 24.553   | .00000 | 35.96734 | 2.20853 | .72458                          | -.15585 | .00029  | -.00365 | -.00647 |  |
| .156    | 26.963   | .00000 | 36.02354 | 2.13774 | .85329                          | -.20957 | -.00684 | -.01375 | .00208  |  |
|         | GRADIENT | .00000 | -.02834  | .10811  | .00650                          | -.02017 | .00015  | -.00038 | -.00052 |  |

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS401

(RJF061) (18 JUN 76)

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = 17.000  
 TORB = 8.000 ELEVON = -5.000  
 BOFLAP = -11.700

RUN NO. 61/0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHA  | BETA   | Q(PSF)   | .CL     | .CD    | .CLM    | .CLN   | .CSL    | CY      |
|----------|--------|--------|----------|---------|--------|---------|--------|---------|---------|
| .155     | -2.736 | .00000 | 35.24522 | .58255  | .19656 | -.37850 | .00045 | -.00070 | -.01088 |
| .154     | .302   | .00000 | 35.11926 | .92938  | .21192 | -.45899 | .00046 | -.00116 | -.01219 |
| .155     | 2.332  | .00000 | 35.21925 | 1.15476 | .22968 | -.49789 | .00051 | -.00113 | -.01041 |
| .155     | 4.452  | .00000 | 35.22411 | 1.36321 | .25468 | -.53368 | .00154 | -.00102 | -.01074 |
| .154     | 6.456  | .00000 | 35.06066 | 1.56067 | .28351 | -.55923 | .00082 | -.00122 | -.00450 |
| .154     | 8.530  | .00000 | 35.16342 | 1.74453 | .31919 | -.58977 | .00125 | -.00257 | -.00985 |
| .155     | 10.517 | .00000 | 35.25288 | 1.92555 | .35553 | -.62685 | .00171 | -.00053 | -.00766 |
| .155     | 12.539 | .00000 | 35.22221 | 2.08800 | .39559 | -.66080 | .00158 | -.00136 | -.00824 |
| .155     | 14.540 | .00000 | 35.30583 | 2.21419 | .43690 | -.67774 | .00136 | -.00038 | -.00658 |
| .155     | 16.627 | .00000 | 35.38786 | 2.31313 | .48624 | -.67243 | .00061 | .00021  | -.00557 |
| .155     | 18.589 | .00000 | 35.46671 | 2.36232 | .54015 | -.62839 | .00080 | .00459  | -.00460 |
| .155     | 20.649 | .00000 | 35.46001 | 2.36308 | .60150 | -.55.91 | .00044 | .00398  | -.00831 |
| .155     | 22.641 | .00000 | 35.58249 | 2.33920 | .67239 | -.47763 | .00156 | .00139  | -.00643 |
| .156     | 24.545 | .00000 | 35.77965 | 2.28000 | .75769 | -.46351 | .00077 | -.00350 | -.00721 |
| .157     | 26.923 | .00000 | 36.29111 | 2.19074 | .89880 | -.48467 | .00005 | -.00488 | -.00740 |
| GRADIENT |        | .00000 | -.00016  | .10907  | .00799 | -.02161 | .00013 | -.00004 | .00007  |

REPRODUCIBILITY OF THE  
 ORIGINAL PAGE IS POOR

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F3005.3.5TS401

(RJF062) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -23.000  
 TORE = 8.000 ELEVON = -5.000  
 BOFLAP = -11.700

RUN NO. 62/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q (PSF)  | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -2.628   | .00000 | 35.32666 | .38152  | .21153 | .43508  | .00109  | -.00076 | -.01550 |
| .154 | .271     | .00000 | 35.15354 | .71118  | .21625 | .36314  | .00157  | .00053  | -.01311 |
| .155 | 2.293    | .00000 | 35.18346 | .93167  | .22685 | .32911  | .00190  | -.00045 | -.01685 |
| .155 | 4.361    | .00000 | 35.30720 | 1.12831 | .24445 | .30061  | .00240  | -.00094 | -.01231 |
| .155 | 6.413    | .00000 | 35.37812 | 1.33120 | .26514 | .28112  | .00213  | -.00082 | -.01079 |
| .154 | 8.457    | .00000 | 35.16227 | 1.51617 | .29339 | .24703  | .00232  | -.00184 | -.00986 |
| .154 | 10.454   | .00000 | 35.14297 | 1.69026 | .32343 | .20476  | .00245  | -.00163 | -.01162 |
| .155 | 12.509   | .00000 | 35.29735 | 1.86737 | .35790 | .16571  | .00239  | -.00194 | -.01269 |
| .155 | 14.491   | .00000 | 35.36512 | 2.00120 | .39140 | .15365  | .00251  | -.00004 | -.01275 |
| .155 | 16.563   | .00000 | 35.33610 | 2.10338 | .43397 | .15122  | .00192  | .00105  | -.00855 |
| .155 | 18.593   | .00000 | 35.55882 | 2.14904 | .48110 | .19753  | .00197  | .00510  | -.00888 |
| .155 | 20.548   | .00000 | 35.43800 | 2.16632 | .53604 | .23338  | .00160  | .00558  | -.01332 |
| .155 | 22.531   | .00000 | 35.52162 | 2.16294 | .60271 | .26454  | .00192  | .00159  | -.01162 |
| .156 | 24.523   | .00000 | 35.65673 | 2.11672 | .69042 | .21768  | .00105  | -.00282 | -.00785 |
| .157 | 27.004   | .00000 | 36.37420 | 2.04351 | .82222 | .14361  | -.00677 | -.01117 | -.00028 |
|      | GRADIENT | .00000 | -.00373  | .10737  | .00462 | -.01927 | .00018  | -.00005 | .00027  |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402

(RJF063) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -23.000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 63/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -2.676   | .00000 | 35.22787 | .34929  | .23193 | .39641  | .00084  | -.00053 | -.01059 |
| .154 | .313     | .00000 | 35.11672 | .69197  | .23511 | .32369  | .00153  | .00013  | -.01337 |
| .154 | 2.338    | .00000 | 35.14922 | .89877  | .24510 | .29545  | .00143  | -.00075 | -.01412 |
| .155 | 4.376    | .00000 | 35.37841 | 1.09883 | .25881 | .27665  | .00189  | -.00111 | -.01519 |
| .155 | 6.403    | .00000 | 35.32498 | 1.28802 | .27970 | .25816  | .00162  | -.00075 | -.01223 |
| .155 | 8.471    | .00000 | 35.24070 | 1.47781 | .30493 | .23713  | .00225  | -.00091 | -.01445 |
| .155 | 10.443   | .00000 | 35.32180 | 1.63909 | .33317 | .21292  | .00170  | -.00063 | -.00960 |
| .155 | 12.482   | .00000 | 35.30419 | 1.81132 | .35566 | .18990  | .00188  | -.00213 | -.01157 |
| .155 | 14.498   | .00000 | 35.26893 | 1.94538 | .39642 | .16744  | .00173  | -.00024 | -.00865 |
| .155 | 16.514   | .00000 | 35.32907 | 2.03793 | .43277 | .20210  | .00156  | .00074  | -.00946 |
| .155 | 18.581   | .00000 | 35.46196 | 2.10222 | .47360 | .24569  | .00110  | .00445  | -.00961 |
| .155 | 20.498   | .00000 | 35.66695 | 2.11117 | .52538 | .28708  | .00055  | .00553  | -.00916 |
| .155 | 22.566   | .00000 | 35.48220 | 2.10816 | .59002 | .30135  | .00070  | .00301  | -.00771 |
| .155 | 24.527   | .00000 | 35.51876 | 2.06854 | .67653 | .21776  | -.00031 | -.00144 | -.00190 |
| .155 | 26.978   | .00000 | 35.59266 | 2.01180 | .81415 | .09303  | -.00820 | -.01127 | .00816  |
|      | GRADIENT | .00000 | .01779   | .10634  | .00377 | -.01708 | .00013  | -.00010 | -.00063 |

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(CA-8) K3V9.1.2TS5H15.6.1F3005.3.5TS402

(RJF064) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -10.000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 64/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -2.683   | .00000 | 35.27578 | .42460  | .22132 | .14817  | -.00003 | .00157  | -.01037 |
| .154 | .317     | .00000 | 35.20136 | .76500  | .22852 | .07332  | .00006  | -.00046 | -.01531 |
| .155 | 2.345    | .00000 | 35.26988 | .96502  | .24069 | .04433  | -.00012 | .00050  | -.01228 |
| .155 | 4.376    | .00000 | 35.23844 | 1.16986 | .25657 | .01560  | .00006  | .00016  | -.01355 |
| .155 | 6.437    | .00000 | 35.26218 | 1.35662 | .27994 | -.00546 | .00013  | -.00046 | -.01187 |
| .154 | 8.426    | .00000 | 35.11101 | 1.54478 | .30556 | -.03146 | .00028  | .00003  | -.00887 |
| .154 | 10.474   | .00000 | 35.04347 | 1.72229 | .33698 | -.05973 | .00041  | -.00027 | -.00820 |
| .155 | 12.469   | .00000 | 35.31864 | 1.88780 | .36911 | -.08793 | .00038  | -.00119 | -.00786 |
| .155 | 14.567   | .00000 | 35.32917 | 2.01399 | .40802 | -.09632 | .00074  | .00008  | -.00919 |
| .155 | 16.533   | .00000 | 35.31849 | 2.11260 | .44409 | -.09137 | .00043  | .00065  | -.00914 |
| .155 | 18.538   | .00000 | 35.34981 | 2.17229 | .48985 | -.05439 | .00024  | .00208  | -.00796 |
| .155 | 20.623   | .00000 | 35.50153 | 2.18318 | .54406 | .00950  | -.00055 | .00388  | -.00919 |
| .155 | 22.577   | .00000 | 35.61361 | 2.16938 | .60644 | .04401  | -.00030 | .00199  | -.00244 |
| .156 | 24.508   | .00000 | 35.71603 | 2.12242 | .69061 | -.00459 | -.00070 | -.00252 | -.00290 |
| .156 | 26.947   | .00000 | 35.65049 | 2.05109 | .83892 | -.07304 | -.00096 | -.00444 | -.00237 |
|      | GRADIENT | .00000 | -.00267  | .10535  | .00495 | -.01869 | .00000  | -.00016 | -.00033 |



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(CA-8) K3V9.1.2TS5H15.6.1F3005.3.5TS402

(RJF065) ( 18 JUN 76 )

## REFERENCE DATA-

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = 10.000  
 IORB = 6.000 ELEVON = -5.000  
 BOFLAP = .000

RUN NO. 65/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHA  | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|----------|--------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155     | -2.742 | .00000 | 35.38541 | .51250  | .21466 | -.24325 | .00129  | .00146  | -.00712 |
| .155     | .293   | .00000 | 35.28732 | .86060  | .22584 | -.33861 | .00147  | .00095  | -.01146 |
| .155     | 2.408  | .00000 | 35.38755 | 1.08888 | .24257 | -.38619 | .00115  | -.00141 | -.01378 |
| .155     | 4.373  | .00000 | 35.23354 | 1.28410 | .26301 | -.42358 | .00155  | -.00161 | -.01312 |
| .155     | 6.439  | .00000 | 35.29763 | 1.47123 | .29168 | -.45428 | .00131  | -.00090 | -.00996 |
| .155     | 8.518  | .00000 | 35.29089 | 1.67155 | .32375 | -.48966 | .00133  | -.00084 | -.01005 |
| .154     | 10.464 | .00000 | 35.14613 | 1.83483 | .35663 | -.52258 | .00153  | -.00129 | -.01075 |
| .155     | 12.529 | .00000 | 35.22882 | 2.00300 | .39595 | -.55653 | .00110  | -.00274 | -.00974 |
| .155     | 14.593 | .00000 | 35.31655 | 2.14300 | .43407 | -.57373 | .00150  | -.00031 | -.00947 |
| .155     | 16.539 | .00000 | 35.38652 | 2.23827 | .47354 | -.57130 | .00113  | .00003  | -.01155 |
| .155     | 18.567 | .00000 | 35.44542 | 2.28370 | .52136 | -.50950 | .00078  | .00437  | -.00735 |
| .155     | 20.559 | .00000 | 35.54109 | 2.28618 | .58102 | -.43979 | -.00012 | .00707  | -.00637 |
| .156     | 22.594 | .00000 | 35.71345 | 2.26085 | .64489 | -.35859 | .00072  | .00179  | -.00687 |
| .156     | 24.555 | .00000 | 36.01819 | 2.20148 | .73314 | -.36122 | -.00016 | -.00276 | -.00030 |
| .157     | 26.904 | .00000 | 36.20545 | 2.13015 | .86656 | -.40229 | -.00372 | -.00813 | .00491  |
| GRADIENT |        | .00000 | -.01506  | .10876  | .00673 | -.02541 | .00002  | -.00049 | -.00090 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402

(RJF066) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = 17.000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

| RUN NO.  | 65/ 0  | RN/L = | .00      | GRADIENT INTERVAL = | -5.00/ | 5.00    |         |         |         |
|----------|--------|--------|----------|---------------------|--------|---------|---------|---------|---------|
| MACH     | ALPHAW | BETA   | Q(PSF)   | CL                  | CD     | CLM     | CLN     | CSL     | CY      |
| .155     | -2.759 | .00000 | 35.30913 | .55291              | .21584 | -.42475 | .00059  | .00062  | -.00833 |
| .155     | .316   | .00000 | 35.36033 | .91366              | .23042 | -.51625 | .00073  | -.00123 | -.01210 |
| .154     | 2.399  | .00000 | 35.18446 | 1.13005             | .24766 | -.55363 | .00084  | -.00039 | -.01425 |
| .155     | 4.351  | .00000 | 35.25906 | 1.33051             | .26913 | -.60468 | .00093  | -.00108 | -.01268 |
| .155     | 6.465  | .00000 | 35.36071 | 1.52669             | .29910 | -.63597 | .00095  | -.00152 | -.01294 |
| .154     | 8.497  | .00000 | 35.14126 | 1.71145             | .33281 | -.67267 | .00130  | -.00101 | -.00894 |
| .155     | 10.506 | .00000 | 35.23456 | 1.88729             | .36916 | -.70887 | .00127  | -.00218 | -.01074 |
| .155     | 12.411 | .00000 | 35.28784 | 2.04465             | .40512 | -.74605 | .00077  | -.00177 | -.00820 |
| .155     | 14.547 | .00000 | 35.42872 | 2.19867             | .44518 | -.75972 | .00159  | -.00132 | -.01257 |
| .155     | 16.567 | .00000 | 35.55420 | 2.29143             | .49049 | -.74994 | .00055  | .00005  | -.00703 |
| .155     | 18.571 | .00000 | 35.48112 | 2.33635             | .54141 | -.70172 | .00061  | .00243  | -.00971 |
| .155     | 20.555 | .00000 | 35.58403 | 2.32860             | .59930 | -.61034 | -.00036 | .00563  | -.00652 |
| .156     | 22.561 | .00000 | 35.87294 | 2.30224             | .66190 | -.50993 | .00017  | .00114  | -.00578 |
| .156     | 24.557 | .00000 | 35.95127 | 2.23437             | .74712 | -.48293 | -.00077 | -.00224 | .00100  |
| .157     | 26.894 | .00000 | 36.35356 | 2.16670             | .87649 | -.52923 | -.00680 | -.01191 | .00359  |
| GRADIENT |        | .00000 | -.01334  | .10937              | .00741 | -.02534 | .00005  | -.00020 | -.00069 |

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(CA-8) K3V9.1.2TS5H15.6.1F3065.3.5TS402

(RJF067) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

| RUN NO. 67/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |        |         |         |         |         |
|---------------|----------|------------|---------------------------------|---------|--------|---------|---------|---------|---------|
| MACH          | ALPHAW   | BETA       | Q(PSF)                          | CL      | CD     | CLM     | CLN     | CSL     | CY      |
| .155          | -2.708   | .00000     | 35.31189                        | .44832  | .21493 | -.02648 | .00103  | .00057  | -.01125 |
| .155          | -1.751   | .00000     | 35.25363                        | .58521  | .21521 | -.05995 | .00056  | -.00036 | -.01132 |
| .155          | .323     | .00000     | 35.27664                        | .80705  | .22373 | -.10848 | .00101  | .00009  | -.01342 |
| .154          | 2.345    | .00000     | 35.20412                        | 1.01896 | .23706 | -.14680 | .00084  | -.00173 | -.01673 |
| .155          | 4.414    | .00000     | 35.28482                        | 1.20962 | .25806 | -.18075 | .00105  | -.00117 | -.01350 |
| .155          | 5.417    | .00000     | 35.31328                        | 1.32428 | .26760 | -.19907 | .00121  | -.00154 | -.01411 |
| .154          | 6.409    | .00000     | 35.18739                        | 1.40892 | .28114 | -.21167 | .00084  | -.00114 | -.01170 |
| .154          | 7.384    | .00000     | 35.15246                        | 1.50545 | .29430 | -.22412 | .00096  | -.00172 | -.01153 |
| .155          | 8.468    | .00000     | 35.23439                        | 1.59679 | .31193 | -.24402 | .00093  | -.00188 | -.01108 |
| .155          | 9.425    | .00000     | 35.25495                        | 1.69140 | .32595 | -.25396 | .00125  | -.00096 | -.01238 |
| .155          | 10.434   | .00000     | 35.23362                        | 1.77753 | .34208 | -.27382 | .00110  | -.00201 | -.01140 |
| .155          | 11.467   | .00000     | 35.21698                        | 1.85884 | .36003 | -.29358 | .00144  | -.00199 | -.01317 |
| .155          | 12.527   | .00000     | 35.26575                        | 1.94350 | .37938 | -.30861 | .00140  | -.00120 | -.01152 |
| .154          | 13.503   | .00000     | 35.19977                        | 2.01755 | .39713 | -.31912 | .00170  | -.00134 | -.01557 |
| .155          | 14.511   | .00000     | 35.29533                        | 2.07822 | .41519 | -.32017 | .00124  | -.00061 | -.01110 |
| .154          | 15.521   | .00000     | 35.20301                        | 2.12795 | .43476 | -.31933 | .00088  | -.00005 | -.00793 |
| .155          | 16.564   | .00000     | 35.38559                        | 2.18043 | .45381 | -.31630 | .00096  | -.00078 | -.01320 |
| .155          | 17.589   | .00000     | 35.44874                        | 2.21719 | .47768 | -.30013 | .00110  | .00114  | -.01052 |
| .155          | 18.591   | .00000     | 35.55809                        | 2.23446 | .50273 | -.27176 | .00100  | .00239  | -.01130 |
| .155          | 19.589   | .00000     | 35.50337                        | 2.23051 | .52976 | -.23656 | -.00039 | .00556  | -.00530 |
| .155          | 20.564   | .00000     | 35.52825                        | 2.22906 | .55630 | -.19995 | .00034  | .00451  | -.00965 |
| .155          | 21.581   | .00000     | 35.51005                        | 2.22610 | .58841 | -.16934 | .00010  | .00355  | -.00683 |
| .155          | 22.545   | .00000     | 35.50795                        | 2.21263 | .62139 | -.15032 | .00027  | .00121  | -.00759 |
| .156          | 23.586   | .00000     | 35.71619                        | 2.18836 | .66312 | -.14832 | -.00007 | -.00037 | -.00236 |
| .156          | 24.552   | .00000     | 35.97844                        | 2.15963 | .70826 | -.17098 | -.00073 | -.00186 | -.00233 |
| .156          | 25.537   | .00000     | 36.02958                        | 2.13717 | .76316 | -.20905 | -.00093 | -.00315 | -.00019 |
| .157          | 26.923   | .00000     | 36.12825                        | 2.09801 | .83948 | -.23982 | -.00605 | -.01237 | .00321  |
|               | GRADIENT | .00000     | -.00474                         | .10600  | .00603 | -.02129 | .00002  | -.00026 | -.00053 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402

(RJF068) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 TORB = 6.000 ELEVON = -5.000  
 BOFLAP = .000

RUN NO. 68/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -2.706   | .00000 | 35.30227 | .42209  | .21736 | .05020  | .00094  | .00041  | -.00947 |
| .155 | -1.775   | .00000 | 35.35006 | .55622  | .21676 | .01924  | .00123  | .00179  | -.01153 |
| .155 | .323     | .00000 | 35.30621 | .78470  | .22460 | -.02916 | .00113  | .00074  | -.01124 |
| .155 | 2.345    | .00000 | 35.28980 | .99991  | .23737 | -.06663 | .00115  | .00000  | -.01607 |
| .155 | 4.335    | .00000 | 35.22988 | 1.19370 | .25433 | -.09842 | .00124  | -.00137 | -.01480 |
| .154 | 6.388    | .00000 | 35.12802 | 1.39116 | .27835 | -.12632 | .00130  | -.00100 | -.01487 |
| .155 | 8.483    | .00000 | 35.23326 | 1.57417 | .30848 | -.15317 | .00109  | -.00151 | -.00898 |
| .155 | 10.534   | .00000 | 35.23031 | 1.76643 | .33935 | -.18791 | .00173  | -.00085 | -.01192 |
| .155 | 12.567   | .00000 | 35.23715 | 1.91693 | .37653 | -.21531 | .00113  | -.00180 | -.01088 |
| .155 | 14.530   | .00000 | 35.37945 | 2.05507 | .40863 | -.22672 | .00157  | -.00065 | -.01217 |
| .155 | 16.568   | .00000 | 35.52490 | 2.15404 | .44875 | -.22102 | .00069  | .00116  | -.00851 |
| .156 | -18.571  | .00000 | 35.71960 | 2.20047 | .49472 | -.17781 | .00083  | .00455  | -.01075 |
| .155 | 20.528   | .00000 | 35.55310 | 2.20458 | .54812 | -.11836 | .00081  | .00420  | -.01092 |
| .155 | 22.574   | .00000 | 35.61625 | 2.19879 | .61581 | -.07473 | .00080  | .00101  | -.00861 |
| .156 | 24.533   | .00000 | 35.93961 | 2.14667 | .70051 | -.09912 | .00006  | -.00255 | -.00564 |
| .156 | 26.947   | .00000 | 35.93105 | 2.07367 | .84661 | -.15501 | -.00073 | -.00380 | -.00088 |
|      | GRADIENT | .00000 | -.01220  | .10800  | .00531 | -.02082 | .00003  | -.00032 | -.00082 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402

(RJF069) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 ØREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 69/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -2.716   | .00000 | 35.41167 | .48746  | .21207 | -.11017 | .00073  | -.00033 | -.01446 |
| .155 | -1.722   | .00000 | 35.34957 | .58522  | .21552 | -.13387 | .00096  | -.00005 | -.01512 |
| .155 | .313     | .00000 | 35.25440 | .82253  | .22380 | -.19239 | .00072  | -.00040 | -.01045 |
| .154 | 2.338    | .00000 | 35.17154 | 1.04464 | .23765 | -.23622 | .00109  | .00004  | -.01578 |
| .155 | 4.403    | .00000 | 35.28885 | 1.24141 | .25815 | -.27386 | .00120  | -.00032 | -.01498 |
| .155 | 6.424    | .00000 | 35.38922 | 1.43001 | .28439 | -.30309 | .00073  | -.00094 | -.01032 |
| .154 | 8.470    | .00000 | 35.18064 | 1.63476 | .31397 | -.34189 | .00106  | -.00041 | -.01132 |
| .154 | 10.488   | .00000 | 35.18737 | 1.79943 | .34833 | -.37285 | .00125  | -.00088 | -.00978 |
| .155 | 12.426   | .00000 | 35.22392 | 1.95776 | .38296 | -.40541 | .00085  | -.00220 | -.01198 |
| .155 | 14.539   | .00000 | 35.33363 | 2.09999 | .42322 | -.42051 | .00121  | -.00102 | -.01314 |
| .155 | 16.605   | .00000 | 35.28571 | 2.20343 | .46273 | -.44413 | .00108  | -.00012 | -.01081 |
| .155 | 18.550   | .00000 | 35.50615 | 2.25486 | .51075 | -.36916 | .00018  | .00411  | -.00870 |
| .155 | 20.553   | .00000 | 35.56829 | 2.25363 | .56588 | -.29059 | -.00040 | .00484  | -.00736 |
| .155 | 22.601   | .00000 | 35.62028 | 2.23131 | .63200 | -.22746 | .00033  | .00166  | -.00720 |
| .156 | 24.636   | .00000 | 35.97100 | 2.17520 | .72313 | -.24784 | -.00065 | -.00287 | -.00149 |
| .157 | 26.928   | .00000 | 36.25806 | 2.12764 | .83860 | -.34570 | -.00087 | -.00170 | -.00288 |
|      | GRADIENT | .00000 | -.02181  | .10749  | .00634 | -.02339 | .00006  | .00000  | -.00011 |

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CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS4Q2SS

(RJF070) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 TORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 70/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHAW | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|----------|--------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155     | -1.781 | .00000 | 35.55025 | .58715  | .21426 | -.06102 | .00073  | -.00004 | -.01087 |
| .155     | .345   | .00000 | 35.40745 | .82016  | .22283 | -.10761 | .00106  | -.00016 | -.01264 |
| .155     | 2.344  | .00000 | 35.23217 | 1.02449 | .23707 | -.14265 | .00072  | -.00049 | -.01108 |
| .155     | 4.359  | .00000 | 35.28173 | 1.22225 | .25633 | -.17778 | .00134  | .00014  | -.01243 |
| .155     | 5.405  | .00000 | 35.29871 | 1.32056 | .26914 | -.19260 | .00135  | -.00011 | -.01336 |
| .154     | 6.465  | .00000 | 35.12355 | 1.42774 | .28240 | -.20684 | .00101  | -.00112 | -.01159 |
| .155     | 7.268  | .00000 | 35.25493 | 1.50639 | .29425 | -.21545 | .00075  | -.00102 | -.01054 |
| .154     | 8.518  | .00000 | 34.93398 | 1.59732 | .31410 | -.23311 | .00154  | -.00118 | -.01040 |
| .155     | 9.467  | .00000 | 35.22571 | 1.68785 | .32799 | -.24883 | .00121  | -.00113 | -.01119 |
| .154     | 10.431 | .00000 | 34.93589 | 1.78247 | .34277 | -.26281 | .00139  | -.00124 | -.01228 |
| .154     | 11.487 | .00000 | 35.10670 | 1.86968 | .36172 | -.29180 | .00114  | -.00234 | -.01127 |
| .155     | 12.549 | .00000 | 35.29028 | 1.94655 | .38129 | -.29405 | .00129  | -.00119 | -.01047 |
| .155     | 13.602 | .00000 | 35.25873 | 2.03674 | .39967 | -.30750 | .00191  | -.00032 | -.01083 |
| .155     | 14.599 | .00000 | 35.27347 | 2.08022 | .41802 | -.30684 | .00122  | -.00051 | -.00794 |
| .155     | 15.640 | .00000 | 35.31666 | 2.13939 | .43814 | -.30921 | .00105  | -.00021 | -.00777 |
| .155     | 16.605 | .00000 | 35.28206 | 2.19031 | .45846 | -.30421 | .00171  | -.00010 | -.01188 |
| .155     | 17.574 | .00000 | 35.45871 | 2.22179 | .48073 | -.29611 | .00180  | .00059  | -.01064 |
| .155     | 18.558 | .00000 | 35.60195 | 2.23412 | .50511 | -.26298 | .00068  | .00524  | -.00639 |
| .156     | 19.565 | .00000 | 35.67616 | 2.23154 | .53133 | -.23143 | .00086  | .00447  | -.00782 |
| .156     | 20.613 | .00000 | 35.69901 | 2.23559 | .56148 | -.19334 | .00140  | .00262  | -.01253 |
| .156     | 21.626 | .00000 | 35.78263 | 2.23513 | .59510 | -.16759 | .00042  | .00359  | -.00732 |
| .156     | 22.591 | .00000 | 35.64651 | 2.22096 | .62701 | -.14585 | .00098  | .00139  | -.00937 |
| .156     | 23.643 | .00000 | 35.68038 | 2.19020 | .67044 | -.13982 | .00082  | -.00131 | -.00668 |
| .155     | 24.561 | .00000 | 35.62948 | 2.16560 | .71462 | -.16367 | .00005  | -.00229 | -.00256 |
| .156     | 25.647 | .00000 | 36.00308 | 2.12455 | .78094 | -.17380 | -.00673 | -.01363 | .00514  |
| .157     | 26.638 | .00000 | 36.10362 | 2.11196 | .83084 | -.21791 | -.00697 | -.01241 | .00307  |
| GRADIENT |        | .00000 | -.04819  | .10335  | .00686 | -.01889 | .00007  | -.00001 | -.00016 |

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(CA-8) K3V9.1.2TS5H15.6.1F30

TS402

(RJF071) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BOFLAP = .000

RUN NO. 71/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | O(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -2.644   | .00000 | 35.23393 | .46449  | .19410 | -.02093 | .00146  | -.00140 | -.01394 |
| .154 | .385     | .00000 | 35.15577 | .82991  | .20646 | -.10014 | .00164  | .00025  | -.01284 |
| .155 | 2.351    | .00000 | 35.37491 | 1.03247 | .22163 | -.13380 | .00187  | .00093  | -.01595 |
| .155 | 4.473    | .00000 | 35.34522 | 1.24290 | .24361 | -.16800 | .00136  | -.00075 | -.01381 |
| .155 | 5.403    | .00000 | 35.37149 | 1.33032 | .25562 | -.18146 | .00152  | -.00018 | -.01334 |
| .154 | 6.461    | .00000 | 35.18243 | 1.43553 | .26970 | -.19876 | .00158  | .00037  | -.01179 |
| .155 | 7.381    | .00000 | 35.27957 | 1.52361 | .28239 | -.20937 | .00124  | -.00102 | -.01089 |
| .155 | 8.465    | .00000 | 35.29531 | 1.61994 | .30063 | -.22817 | .00118  | -.00143 | -.01150 |
| .155 | 9.537    | .00000 | 35.22123 | 1.72446 | .31786 | -.24390 | .00155  | -.00038 | -.01048 |
| .155 | 10.413   | .00000 | 35.39613 | 1.77870 | .33542 | -.25473 | .00114  | -.00221 | -.00993 |
| .155 | 11.542   | .00000 | 35.28347 | 1.88645 | .35585 | -.27189 | .00135  | -.00126 | -.00995 |
| .154 | 12.502   | .00000 | 35.17616 | 1.97261 | .37199 | -.28765 | .00118  | -.00118 | -.00960 |
| .155 | 13.566   | .00000 | 35.27129 | 2.04200 | .39140 | -.29229 | .00120  | -.00115 | -.01223 |
| .155 | 14.530   | .00000 | 35.28866 | 2.10533 | .40828 | -.29157 | .00157  | -.00013 | -.01052 |
| .155 | 15.491   | .00000 | 35.39615 | 2.14924 | .42815 | -.29214 | .00145  | -.00001 | -.00926 |
| .155 | 16.590   | .00000 | 35.36514 | 2.19778 | .44947 | -.28402 | .00102  | .00095  | -.00665 |
| .155 | 17.564   | .00000 | 35.41058 | 2.23396 | .47276 | -.27161 | .00147  | .00152  | -.00836 |
| .155 | 18.579   | .00000 | 35.53087 | 2.24419 | .49740 | -.24147 | .00095  | .00451  | -.00536 |
| .156 | 19.580   | .00000 | 35.67078 | 2.24493 | .52440 | -.20154 | .00009  | .00574  | -.00646 |
| .155 | 20.512   | .00000 | 35.24675 | 2.24993 | .55069 | -.17625 | .00057  | .00459  | -.00959 |
| .155 | 21.556   | .00000 | 35.26076 | 2.24552 | .58245 | -.14285 | .00033  | .00288  | -.00642 |
| .156 | 22.543   | .00000 | 35.65916 | 2.22571 | .61551 | -.12050 | .00054  | .00243  | -.00889 |
| .156 | 23.569   | .00000 | 35.77543 | 2.20847 | .65837 | -.11895 | .00094  | -.00055 | -.00711 |
| .156 | 24.487   | .00000 | 35.69510 | 2.18366 | .70062 | -.13908 | .00022  | -.00162 | -.00613 |
| .157 | 25.575   | .00000 | 36.12959 | 2.16044 | .76179 | -.19092 | .00017  | -.00250 | -.00256 |
| .157 | 26.973   | .00000 | 36.08230 | 2.12467 | .84410 | -.23332 | -.00610 | -.01149 | .00089  |
|      | GRADIENT | .00000 | .02186   | .10939  | .00688 | -.02063 | .00000  | .00013  | -.00010 |

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(CA-8) K3V9.1.2TS5

F30G5.3.5TS402

(RJF072) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 72/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHA  | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|----------|--------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155     | -2.855 | .00000 | 35.60479 | .50678  | .21239 | -.26874 | .00090  | -.00038 | -.01426 |
| .155     | .343   | .00000 | 35.20251 | .87314  | .22429 | -.31030 | .00113  | -.00022 | -.01308 |
| .155     | 2.275  | .00000 | 35.35532 | 1.06071 | .23831 | -.31850 | .00076  | -.00094 | -.01430 |
| .154     | 4.406  | .00000 | 35.00703 | 1.25744 | .25911 | -.32117 | .00074  | -.00151 | -.01444 |
| .154     | 5.382  | .00000 | 34.91465 | 1.34911 | .27005 | -.32073 | .00099  | -.00035 | -.01388 |
| .154     | 6.451  | .00000 | 35.07342 | 1.44469 | .28491 | -.31996 | .00108  | -.00049 | -.01363 |
| .154     | 7.403  | .00000 | 35.09636 | 1.52684 | .29648 | -.31966 | .00134  | -.00044 | -.01429 |
| .154     | 8.427  | .00000 | 35.10671 | 1.62081 | .31217 | -.31890 | .00102  | -.00115 | -.01209 |
| .154     | 9.518  | .00000 | 35.08996 | 1.71690 | .32802 | -.31759 | .00098  | -.00038 | -.01022 |
| .154     | 10.450 | .00000 | 35.14087 | 1.78241 | .34362 | -.31533 | .00090  | -.00104 | -.01026 |
| .155     | 11.606 | .00000 | 35.23086 | 1.89019 | .36005 | -.31658 | .00173  | -.00019 | -.01427 |
| .155     | 12.578 | .00000 | 35.27696 | 1.95673 | .37833 | -.31735 | .00160  | -.00086 | -.01324 |
| .155     | 13.590 | .00000 | 35.29435 | 2.02257 | .39519 | -.30755 | .00134  | -.00140 | -.01351 |
| .155     | 14.485 | .00000 | 35.33706 | 2.07387 | .40978 | -.29611 | .00128  | .00100  | -.00865 |
| .155     | 15.596 | .00000 | 35.50397 | 2.11680 | .43017 | -.28177 | .00127  | .00039  | -.01302 |
| .155     | 16.609 | .00000 | 35.42174 | 2.16275 | .44986 | -.26078 | .00106  | .00043  | -.01223 |
| .155     | 17.475 | .00000 | 35.36517 | 2.19763 | .46783 | -.24122 | .00072  | .00152  | -.00914 |
| .155     | 18.551 | .00000 | 35.37760 | 2.22136 | .49497 | -.21083 | .00118  | .00307  | -.01399 |
| .155     | 19.492 | .00000 | 35.48260 | 2.22532 | .52198 | -.18395 | .00088  | .00468  | -.01166 |
| .155     | 20.591 | .00000 | 35.52847 | 2.22343 | .55362 | -.15369 | .00101  | .00695  | -.01112 |
| .155     | 21.563 | .00000 | 35.59578 | 2.21891 | .58325 | -.12861 | .00157  | .00477  | -.01006 |
| .156     | 22.644 | .00000 | 35.62816 | 2.20383 | .61968 | -.10383 | .00176  | .00262  | -.01312 |
| .156     | 23.608 | .00000 | 35.65570 | 2.17740 | .65867 | -.08897 | .00172  | .00003  | -.01240 |
| .155     | 24.444 | .00000 | 35.57590 | 2.15086 | .69718 | -.07873 | .00100  | -.00036 | -.00806 |
| .156     | 25.570 | .00000 | 35.80703 | 2.11190 | .75094 | -.06749 | -.00022 | -.00082 | -.00444 |
| .157     | 26.907 | .00000 | 36.15096 | 2.05604 | .81823 | -.03046 | -.00589 | -.00770 | -.00110 |
| GRADIENT |        | .00000 | -.07144  | .10353  | .00634 | -.00732 | -.00003 | -.00016 | -.00005 |



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(CA-8) K3V9.1.2TS5

F3005.3.5TS402

(RJF073) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA.

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 IORB = 8.000 ELEVON = -5.000  
 BDFLAP = .000

| RUN NO. |          | 73/ 0  | RN/L = .00 | GRADIENT INTERVAL = 5.00/ 5.00 |        |         |         |         |         |
|---------|----------|--------|------------|--------------------------------|--------|---------|---------|---------|---------|
| MACH    | ALPHA    | BETA   | Q(PSF)     | CL                             | CD     | CLM     | CLN     | CSL     | CY      |
| .155    | -2.857   | .00000 | 35.42910   | .53023                         | .20746 | -.27578 | .00091  | .00024  | -.01290 |
| .154    | .279     | .00000 | 35.04320   | .89789                         | .22025 | -.32191 | .00117  | .00055  | -.00952 |
| .154    | 2.400    | .00000 | 34.99636   | 1.09949                        | .23812 | -.32970 | .00090  | -.00057 | -.01180 |
| .154    | 4.391    | .00000 | 35.06054   | 1.29911                        | .25835 | -.33225 | .00141  | -.00088 | -.01048 |
| .154    | 5.435    | .00000 | 35.02893   | 1.38052                        | .27308 | -.33127 | .00167  | -.00134 | -.01060 |
| .154    | 6.455    | .00000 | 35.11326   | 1.48274                        | .28547 | -.32885 | .00178  | -.00076 | -.01217 |
| .155    | 7.600    | .00000 | 35.43010   | 1.58134                        | .30323 | -.32491 | .00188  | -.00084 | -.00951 |
| .155    | 8.527    | .00000 | 35.47169   | 1.66674                        | .31740 | -.32417 | .00188  | -.00081 | -.01031 |
| .155    | 9.539    | .00000 | 35.38246   | 1.74739                        | .33475 | -.32374 | .00207  | -.00048 | -.00999 |
| .154    | 10.517   | .00000 | 35.18519   | 1.83240                        | .34946 | -.31966 | .00178  | -.00029 | -.00881 |
| .155    | 11.555   | .00000 | 35.30775   | 1.90401                        | .36952 | -.32332 | .00193  | .00007  | -.00839 |
| .155    | 12.335   | .00000 | 35.31157   | 1.96470                        | .38279 | -.31992 | .00120  | -.00096 | -.00688 |
| .155    | 13.515   | .00000 | 35.36298   | 2.03862                        | .40523 | -.31156 | .00109  | -.00108 | -.00675 |
| .155    | 14.441   | .00000 | 35.30606   | 2.10729                        | .41957 | -.29874 | .00136  | .00111  | -.00497 |
| .155    | 15.498   | .00000 | 35.26128   | 2.15600                        | .44179 | -.28295 | .00124  | .00038  | -.00746 |
| .155    | 16.567   | .00000 | 35.41286   | 2.19874                        | .46625 | -.26524 | .00051  | .00096  | -.00530 |
| .155    | 17.557   | .00000 | 35.46706   | 2.23611                        | .48664 | -.24126 | .00098  | .00192  | -.00717 |
| .155    | 18.592   | .00000 | 35.62054   | 2.24699                        | .51484 | -.21473 | .00012  | .00576  | -.00515 |
| .156    | 19.632   | .00000 | 35.67875   | 2.25147                        | .54615 | -.18148 | .00098  | .00732  | -.00673 |
| .155    | 20.585   | .00000 | 35.29259   | 2.25459                        | .57416 | -.15625 | .00167  | .00627  | -.00958 |
| .155    | 21.510   | .00000 | 35.33747   | 2.25424                        | .60588 | -.13260 | .00283  | .00340  | -.01271 |
| .156    | 22.644   | .00000 | 35.72535   | 2.24531                        | .64702 | -.11153 | .00211  | .00318  | -.00855 |
| .156    | 23.588   | .00000 | 35.86332   | 2.22166                        | .68681 | -.09081 | .00254  | -.00091 | -.00909 |
| .156    | 24.565   | .00000 | 35.85080   | 2.18574                        | .73019 | -.07739 | .00212  | -.00166 | -.00672 |
| .156    | 25.672   | .00000 | 35.80402   | 2.14935                        | .78338 | -.06.24 | .00034  | -.00117 | -.00187 |
| .156    | 26.943   | .00000 | 35.75159   | 2.09676                        | .85075 | -.01469 | -.00600 | -.01013 | .00280  |
|         | GRADIENT | .00000 | -.05250    | .10568                         | .00698 | -.00781 | .00005  | -.00018 | .00024  |

REPRODUCIBILITY OF THE  
 ORIGINAL PAGE IS POOR

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402

(RJF074) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 IORB = 8.000 ELEVON = -5.000  
 BDFLAP = .000

| RUN NO. 74/ 0 |          | RN/L = .00 |          | GRADIENT INTERVAL = -5.00/ 5.00 |        |         |         |         |         |
|---------------|----------|------------|----------|---------------------------------|--------|---------|---------|---------|---------|
| MACH          | ALPHA    | BETA       | Q(PSF)   | CL                              | CD     | CLM     | CLN     | CSL     | CY      |
| .155          | -2.728   | .00000     | 35.34213 | .44926                          | .21685 | .07922  | .00127  | .00127  | -.00996 |
| .155          | .305     | .00000     | 35.22332 | .81097                          | .22519 | -.01014 | .00120  | -.00053 | -.01460 |
| .155          | 2.306    | .00000     | 35.20768 | 1.02317                         | .23851 | -.04504 | .00097  | -.00145 | -.01562 |
| .155          | 4.413    | .00000     | 35.33316 | 1.22523                         | .25926 | -.06886 | .00130  | -.00056 | -.01367 |
| .155          | 6.486    | .00000     | 35.34467 | 1.42747                         | .28419 | -.09478 | .00192  | -.00077 | -.01524 |
| .154          | 8.500    | .00000     | 35.19299 | 1.60470                         | .31586 | -.12156 | .00173  | -.00011 | -.01044 |
| .155          | 10.320   | .00000     | 35.29224 | 1.76145                         | .34606 | -.14465 | .00192  | -.00170 | -.01270 |
| .155          | 12.605   | .00000     | 35.20269 | 1.95823                         | .38608 | -.17335 | .00210  | -.00150 | -.01279 |
| .155          | 14.439   | .00000     | 35.28111 | 2.06452                         | .42285 | -.17936 | .00154  | -.00030 | -.00816 |
| .155          | 16.602   | .00000     | 35.29839 | 2.18638                         | .46588 | -.17019 | .00131  | .00042  | -.00852 |
| .155          | 18.408   | .00000     | 35.40971 | 2.23832                         | .50955 | -.13851 | .00241  | .00331  | -.01183 |
| .155          | 20.556   | .00000     | 35.61682 | 2.24993                         | .57302 | -.07827 | .00170  | .00541  | -.01138 |
| .155          | 22.573   | .00000     | 35.47496 | 2.23469                         | .64263 | -.04191 | .00185  | .00158  | -.01007 |
| .155          | 24.663   | .00000     | 35.60261 | 2.18544                         | .73649 | -.07517 | .00105  | -.00182 | -.00247 |
| .157          | 27.007   | .00000     | 36.15508 | 2.12689                         | .86884 | -.14441 | -.00579 | -.01102 | .00216  |
|               | GRADIENT | .00000     | -.00376  | .10897                          | .00584 | -.02089 | -.00001 | -.00029 | -.00057 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402

(RJF075) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 8.000 ELEVON = -5.000  
 BDFLAP = .000

| RUN NO.  | 75/ 0  | RN/L = | .00      | GRADIENT INTERVAL = | -5.00/ | 5.00    |         |         |         |
|----------|--------|--------|----------|---------------------|--------|---------|---------|---------|---------|
| MACH     | ALPHAW | BETA   | Q(PSF)   | CL                  | CD     | CLM     | CLN     | CSL     | CY      |
| .154     | -1.862 | .00000 | 35.13072 | .58445              | .21399 | -.02607 | .00089  | .00042  | -.00865 |
| .154     | .420   | .00000 | 35.13403 | .83682              | .22364 | -.08230 | .00112  | .00078  | -.00864 |
| .154     | 2.347  | .00000 | 35.04509 | 1.03084             | .23902 | -.11349 | .00124  | .00013  | -.01181 |
| .154     | 4.422  | .00000 | 35.12963 | 1.25110             | .25878 | -.15038 | .00146  | -.00169 | -.01297 |
| .154     | 5.437  | .00000 | 35.10624 | 1.34820             | .27190 | -.16356 | .00146  | -.00153 | -.01275 |
| .155     | 6.403  | .00000 | 35.25159 | 1.44080             | .28416 | -.17820 | .00175  | -.00068 | -.01112 |
| .154     | 7.564  | .00000 | 35.14207 | 1.53192             | .30305 | -.18752 | .00116  | -.00236 | -.00944 |
| .155     | 8.485  | .00000 | 35.35915 | 1.62770             | .31675 | -.20532 | .00150  | -.00062 | -.00834 |
| .155     | 9.547  | .00000 | 35.26658 | 1.70946             | .33597 | -.21699 | .00090  | -.00200 | -.00768 |
| .155     | 10.424 | .00000 | 35.35299 | 1.79481             | .34948 | -.22951 | .00192  | -.00163 | -.01337 |
| .155     | 11.440 | .00000 | 35.33718 | 1.86897             | .36996 | -.24109 | .00108  | -.00217 | -.00833 |
| .155     | 12.633 | .00000 | 35.22346 | 1.98429             | .38907 | -.26064 | .00182  | -.00014 | -.00904 |
| .155     | 13.473 | .00000 | 35.29139 | 2.03277             | .40654 | -.26373 | .00187  | -.00087 | -.00929 |
| .155     | 14.499 | .00000 | 35.39723 | 2.09684             | .42625 | -.26492 | .00192  | -.00014 | -.00980 |
| .155     | 15.514 | .00000 | 35.39925 | 2.15613             | .44636 | -.26405 | .00129  | .00025  | -.00648 |
| .155     | 16.501 | .00000 | 35.35156 | 2.20145             | .46688 | -.25866 | .00180  | .00050  | -.00840 |
| .155     | 17.738 | .00000 | 35.45626 | 2.24964             | .49698 | -.24154 | .00201  | .00128  | -.00984 |
| .155     | 18.496 | .00000 | 35.60344 | 2.25356             | .51771 | -.22078 | .00178  | .00336  | -.00847 |
| .155     | 19.734 | .00000 | 35.52882 | 2.26336             | .55313 | -.18145 | .00095  | .00664  | -.00655 |
| .155     | 20.579 | .00000 | 35.64264 | 2.26713             | .58011 | -.16034 | .00079  | .00531  | -.00518 |
| .156     | 21.494 | .00000 | 35.67912 | 2.25902             | .60969 | -.13825 | .00071  | .00483  | -.00565 |
| .156     | 22.640 | .00000 | 35.69988 | 2.24935             | .65252 | -.11630 | .00151  | .00132  | -.00678 |
| .156     | 23.552 | .00000 | 35.76969 | 2.22612             | .69190 | -.11851 | .00179  | -.00169 | -.00602 |
| .156     | 24.519 | .00000 | 35.75933 | 2.20290             | .73575 | -.13832 | .00078  | -.00214 | -.00356 |
| .156     | 25.461 | .00000 | 35.72829 | 2.19009             | .78707 | -.16955 | .00059  | -.00193 | -.00280 |
| .156     | 26.968 | .00000 | 35.91010 | 2.14114             | .87454 | -.21357 | -.00623 | -.01086 | .00210  |
| GRADIENT |        | .00000 | -.00432  | .10565              | .00717 | -.01951 | .00009  | -.00033 | -.00077 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F30G5.3.5TS402

(RJF076) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 TORB = 8.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 76/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHAW | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|----------|--------|--------|----------|---------|--------|---------|---------|---------|---------|
| .154     | -2.709 | .00000 | 35.19950 | .50458  | .21119 | -.07821 | .00088  | .00144  | -.00538 |
| .154     | .303   | .00000 | 35.09904 | .86375  | .22200 | -.16433 | .00085  | .00024  | -.00776 |
| .154     | 2.329  | .00000 | 35.12301 | 1.06404 | .23795 | -.20069 | .00090  | -.00049 | -.01288 |
| .154     | 4.324  | .00000 | 35.15562 | 1.26746 | .25843 | -.23424 | .00147  | -.00106 | -.01159 |
| .155     | 6.459  | .00000 | 35.33136 | 1.46812 | .28768 | -.26181 | .00188  | .00009  | -.01362 |
| .155     | 8.407  | .00000 | 35.33098 | 1.64635 | .31863 | -.28800 | .00138  | -.00076 | -.01042 |
| .155     | 10.527 | .00000 | 35.20843 | 1.83407 | .35460 | -.31690 | .00140  | -.00078 | -.01084 |
| .155     | 12.604 | .00000 | 35.23756 | 2.00122 | .39520 | -.34660 | .00147  | -.00188 | -.01169 |
| .154     | 14.465 | .00000 | 35.18998 | 2.12340 | .43105 | -.38529 | .00123  | -.00006 | -.00675 |
| .155     | 16.469 | .00000 | 35.27659 | 2.22175 | .47454 | -.38875 | .00193  | -.00008 | -.01164 |
| .155     | 18.516 | .00000 | 35.49595 | 2.27774 | .52658 | -.38984 | .00181  | .00287  | -.01161 |
| .155     | 20.415 | .00000 | 35.63468 | 2.28771 | .58191 | -.24577 | .00102  | .00626  | -.00894 |
| .156     | 22.411 | .00000 | 35.69170 | 2.27391 | .65183 | -.19376 | .00138  | .00204  | -.00763 |
| .155     | 24.435 | .00000 | 35.59996 | 2.23864 | .74715 | -.21651 | .00106  | -.00075 | -.00405 |
| .156     | 26.972 | .00000 | 35.88046 | 2.16016 | .88398 | -.27878 | -.00634 | -.01100 | .00621  |
| GRADIENT |        | .00000 | -.00606  | .10817  | .00665 | -.02215 | .00007  | -.00036 | -.00103 |

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CA-8 - FORCE SOURCE DATA TABULATION

(PAGE 76

(CA-8) K3V9.1.2TS5H15.6.1F20G5.3.5TS402

(RJF077) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

| RUN NO. 77/ 0 |          | RN/L = .00 |          | GRADIENT INTERVAL = -5.00/ 5.00 |         |          |         |         |         |
|---------------|----------|------------|----------|---------------------------------|---------|----------|---------|---------|---------|
| MACH          | ALPHA    | BETA       | Q(PSF)   | CL                              | CD      | CLM      | CLN     | CSL     | CY      |
| .154          | -2.847   | .00000     | 35.00326 | -.03906                         | .14315  | .15143   | .00104  | .00084  | -.00921 |
| .154          | .300     | .00000     | 35.09624 | .31143                          | .13323  | .03231   | .00145  | .00060  | -.01207 |
| .154          | 2.197    | .00000     | 34.97641 | .50420                          | .13253  | .04305   | .00113  | .00060  | -.01065 |
| .154          | 4.290    | .00000     | 35.08923 | .72477                          | .13912  | .03362   | .00113  | -.00010 | -.01320 |
| .154          | 5.326    | .00000     | 35.11993 | .82820                          | .14649  | -.01678  | .00088  | .00002  | -.00865 |
| .154          | 6.356    | .00000     | 35.15275 | .92937                          | .15547  | -.03649  | .00116  | -.00016 | -.00936 |
| .154          | 7.321    | .00000     | 35.17768 | 1.02215                         | .16489  | -.05525  | .00162  | -.00033 | -.01029 |
| .154          | 8.430    | .00000     | 35.20465 | 1.11892                         | .17969  | -.07209  | .00144  | -.00141 | -.01056 |
| .155          | 9.400    | .00000     | 35.23402 | 1.21490                         | .19296  | -.09879  | .00171  | -.00064 | -.01007 |
| .154          | 10.414   | .00000     | 35.20078 | 1.30591                         | .20757  | -.13718  | .00189  | -.00058 | -.01201 |
| .154          | 11.523   | .00000     | 35.17827 | 1.41278                         | .22631  | -.13045  | .00131  | -.00147 | -.00906 |
| .154          | 12.432   | .00000     | 35.18956 | 1.47938                         | .24396  | -.11754  | .00089  | -.00260 | -.00757 |
| .154          | 13.416   | .00000     | 35.19914 | 1.57648                         | .26274  | -.117425 | .00121  | -.00205 | -.00785 |
| .155          | 14.419   | .00000     | 35.28174 | 1.66360                         | .28394  | -.19791  | .00113  | -.00222 | -.00743 |
| .155          | 15.456   | .00000     | 35.30123 | 1.75903                         | .30492  | -.22173  | .00060  | -.00223 | -.00694 |
| .155          | 16.546   | .00000     | 35.40125 | 1.83282                         | .32899  | -.23193  | .00091  | -.00205 | -.00839 |
| .155          | 17.467   | .00000     | 35.41117 | 1.88686                         | .34981  | -.23411  | .00040  | -.00104 | -.00584 |
| .155          | 18.446   | .00000     | 35.51373 | 1.94067                         | .37524  | -.23068  | .00051  | -.00107 | -.00761 |
| .155          | 19.495   | .00000     | 35.51283 | 1.97881                         | .40244  | -.21915  | -.00007 | .00015  | -.00419 |
| .155          | 20.540   | .00000     | 35.40817 | 2.01129                         | .43330  | -.20609  | .00034  | -.00044 | -.00553 |
| .155          | 21.516   | .00000     | 35.42027 | 2.03100                         | .46576  | -.19421  | .00001  | -.00033 | -.00365 |
| .155          | 22.675   | .00000     | 35.34771 | 2.04265                         | .50921  | -.19590  | .00026  | .00020  | -.00257 |
| .155          | 23.547   | .00000     | 35.39563 | 2.04451                         | .54590  | -.20797  | .00038  | .00008  | -.00192 |
| .156          | 24.608   | .00000     | 35.71158 | 2.04571                         | .58995  | -.21938  | .00024  | .00050  | -.00290 |
| .156          | 26.887   | .00000     | 35.88663 | 2.03944                         | .69503  | -.28654  | .00017  | -.00371 | -.00056 |
|               | GRADIENT | .00000     | .00682   | .10670                          | -.00071 | -.02078  | .00000  | -.00012 | -.00047 |

REPRODUCIBILITY OF THE  
 ORIGINAL PAGE IS POOR

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F20

TS402

(RJF078) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 TORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

| RUN NO. 78/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |         |         |
|---------------|----------|------------|---------------------------------|---------|---------|---------|---------|---------|---------|
| MACH          | ALPHA    | BETA       | Q(PSF)                          | CL      | CD      | CLM     | CLN     | CSL     | CY      |
| .155          | -2.773   | .00000     | 35.41870                        | -.06911 | .13242  | .24585  | .00134  | -.00072 | -.00897 |
| .155          | .258     | .00000     | 35.30816                        | .27135  | .11500  | .18373  | .00171  | -.00006 | -.01876 |
| .155          | 2.259    | .00000     | 35.22380                        | .48351  | .11564  | .14633  | .00150  | .00016  | -.01424 |
| .154          | 4.313    | .00000     | 35.17132                        | .69415  | .12359  | .11235  | .00099  | .00065  | -.01169 |
| .154          | 6.240    | .00000     | 35.19975                        | .89929  | .13846  | .07480  | .00117  | .00024  | -.01149 |
| .154          | 8.322    | .00000     | 35.21712                        | 1.09774 | .16222  | .04019  | .00147  | -.00042 | -.01269 |
| .154          | 10.393   | .00000     | 35.21679                        | 1.29500 | .19250  | .00621  | .00154  | .00014  | -.00929 |
| .155          | 12.421   | .00000     | 35.22858                        | 1.47399 | .22890  | -.03283 | .00150  | -.00028 | -.00954 |
| .155          | 14.426   | .00000     | 35.26510                        | 1.65848 | .26947  | -.08006 | .00098  | -.00158 | -.00841 |
| .155          | 16.432   | .00000     | 35.29110                        | 1.80831 | .31287  | -.10849 | .00065  | -.00100 | -.00681 |
| .155          | 18.508   | .00000     | 35.35493                        | 1.93446 | .36270  | -.11709 | .00036  | -.00048 | -.00737 |
| .155          | 20.471   | .00000     | 35.48386                        | 2.00507 | .41931  | -.10400 | .00001  | .00000  | -.00323 |
| .155          | 22.484   | .00000     | 35.58465                        | 2.03598 | .48668  | -.08854 | .00030  | .00013  | -.00556 |
| .155          | 24.545   | .00000     | 35.44387                        | 2.05515 | .57790  | -.13314 | .00126  | .00103  | -.00258 |
| .155          | 26.892   | .00000     | 35.59733                        | 2.04416 | .68431  | -.22400 | .00042  | -.00308 | .00599  |
|               | GRADIENT | .00000     | -.03566                         | .10781  | -.00135 | -.01892 | -.00005 | .00019  | -.00030 |

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CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F20 TS402

(RJF079) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 6.000 FLEVON = -5.000  
 BDFLAP = .000

RUN NO. 79/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHA  | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|----------|--------|--------|----------|---------|---------|---------|---------|---------|---------|
| .154     | -2.778 | .00000 | 35.18761 | -.05561 | .12987  | .16392  | .00134  | .00059  | -.00828 |
| .154     | .176   | .00000 | 35.13699 | .28753  | .11396  | .09970  | .00148  | .00005  | -.01456 |
| .154     | 2.191  | .00000 | 35.10073 | .50361  | .11475  | .05418  | .00123  | .00147  | -.01053 |
| .154     | 4.248  | .00000 | 35.14908 | .70504  | .12363  | .02020  | .00086  | -.00011 | -.01299 |
| .154     | 5.244  | .00000 | 35.14992 | .82758  | .13017  | -.00146 | .00121  | -.00007 | -.01364 |
| .154     | 6.428  | .00000 | 35.16898 | .93985  | .14134  | -.02339 | .00093  | -.00019 | -.01231 |
| .154     | 7.251  | .00000 | 35.16775 | 1.01293 | .15139  | -.03734 | .00120  | -.00076 | -.01335 |
| .155     | 9.315  | .00000 | 35.22381 | 1.20740 | .17938  | -.06873 | .00097  | -.00064 | -.00913 |
| .154     | 10.407 | .00000 | 35.21612 | 1.31045 | .19596  | -.08734 | .00141  | -.00173 | -.01197 |
| .154     | 11.417 | .00000 | 35.19103 | 1.41067 | .21273  | -.10932 | .00131  | -.00115 | -.01020 |
| .154     | 12.469 | .00000 | 35.12582 | 1.50357 | .23308  | -.13119 | .00119  | -.00122 | -.01080 |
| .154     | 13.482 | .00000 | 35.17902 | 1.59622 | .25254  | -.15853 | .00127  | -.00230 | -.01085 |
| .155     | 14.545 | .00000 | 35.25061 | 1.68380 | .27619  | -.18038 | .00040  | -.00132 | -.00504 |
| .155     | 15.502 | .00000 | 35.28300 | 1.76447 | .29669  | -.19723 | .00089  | -.00222 | -.00924 |
| .155     | 16.490 | .00000 | 35.32987 | 1.83718 | .31854  | -.20798 | .00046  | -.00117 | -.00768 |
| .155     | 17.451 | .00000 | 35.54264 | 1.89893 | .34048  | -.21023 | .00001  | -.00200 | -.00679 |
| .155     | 17.707 | .00000 | 35.47940 | 1.90983 | .35020  | -.21000 | .00009  | -.00129 | -.00527 |
| .155     | 18.521 | .00000 | 35.37279 | 1.95323 | .36866  | -.20841 | -.00006 | -.00069 | -.00735 |
| .155     | 19.512 | .00000 | 35.45991 | 1.98965 | .39472  | -.19891 | -.00049 | -.00003 | -.00307 |
| .155     | 20.602 | .00000 | 35.49168 | 2.02168 | .42756  | -.18525 | -.00062 | -.00014 | -.00314 |
| .155     | 21.611 | .00000 | 35.54571 | 2.04167 | .46035  | -.17322 | -.00002 | -.00030 | -.00740 |
| .155     | 22.627 | .00000 | 35.62437 | 2.04602 | .49650  | -.16902 | .00018  | .00020  | -.00435 |
| .155     | 23.475 | .00000 | 35.58289 | 2.05067 | .53424  | -.18443 | .00060  | -.00031 | -.00179 |
| .155     | 24.508 | .00000 | 35.50143 | 2.05556 | .57946  | -.21006 | .00095  | -.00046 | -.00518 |
| .155     | 25.593 | .00000 | 35.50618 | 2.05664 | .62860  | -.24148 | .00138  | -.00004 | -.00625 |
| .156     | 26.877 | .00000 | 35.77506 | 2.05412 | .69219  | -.31177 | .00092  | -.00472 | -.00062 |
| GRADIENT |        | .00000 | -.00721  | .10856  | -.00099 | -.02070 | -.00007 | -.00003 | -.00050 |

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## CA-8 - FORCE SOURCE DATA TABULATION

PAGE 79

(CA-8) K3V9.1.2TS5H15.6.1F20

TS402

(RJF080) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 80/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -2.818   | .00000 | 35.23571 | -.03252 | .12905  | .07730  | .00136  | .00053  | -.01220 |
| .155 | .231     | .00000 | 35.26475 | .31827  | .11339  | .00449  | .00120  | -.00068 | -.01564 |
| .154 | 2.160    | .00000 | 35.19490 | .53069  | .11426  | -.04089 | .00131  | -.00008 | -.01610 |
| .154 | 4.341    | .00000 | 35.21954 | .74543  | .12501  | -.07931 | .00091  | .00023  | -.01244 |
| .155 | 6.376    | .00000 | 35.24100 | .96344  | .14264  | -.12244 | .00115  | .00000  | -.01305 |
| .155 | 8.436    | .00000 | 35.31718 | 1.16225 | .16840  | -.15848 | .00124  | -.00117 | -.01032 |
| .155 | 10.475   | .00000 | 35.24292 | 1.34723 | .20141  | -.19417 | .00167  | .00005  | -.00884 |
| .155 | 12.425   | .00000 | 35.32922 | 1.53376 | .23693  | -.23650 | .00133  | -.00017 | -.01113 |
| .155 | 14.314   | .00000 | 35.36059 | 1.70576 | .27767  | -.28022 | .00084  | -.00131 | -.00807 |
| .155 | 16.496   | .00000 | 35.32959 | 1.88070 | .32655  | -.30530 | .00089  | -.00090 | -.00725 |
| .155 | 18.517   | .00000 | 35.39663 | 1.98344 | .37729  | -.29623 | -.00011 | .00014  | -.00377 |
| .155 | 20.543   | .00000 | 35.62882 | 2.05114 | .43544  | -.26500 | .00013  | -.00123 | -.00733 |
| .156 | 22.567   | .00000 | 35.79655 | 2.07052 | .50399  | -.25581 | .00034  | -.00048 | -.00640 |
| .155 | 24.614   | .00000 | 35.53690 | 2.07539 | .59085  | -.29223 | .00054  | .00001  | -.00391 |
| .157 | 26.863   | .00000 | 35.26830 | 2.07017 | .70141  | -.39648 | .00078  | -.00040 | .00276  |
|      | GRADIENT | .00000 | -.00449  | .10909  | -.00070 | -.02211 | -.00005 | -.00003 | -.00010 |



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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F20TS402

(RJF081) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 STAB = 3.000 ELEVTR = .000  
 TORB = 6.000 ELEVON = -5.000  
 BOFLAP = .000

| RUN NO. |          | B1/ 0  | RN/L =   | .00     | GRADIENT INTERVAL = |         | -5.00/  | 5.00    |         |  |
|---------|----------|--------|----------|---------|---------------------|---------|---------|---------|---------|--|
| MACH    | ALPHA    | BETA   | Q(PSF)   | CL      | CD                  | CLM     | CLN     | CSL     | CY      |  |
| .154    | -2.792   | .00000 | 35.16622 | .01137  | .12814              | -.07153 | .00065  | -.00014 | -.01020 |  |
| .154    | .213     | .00000 | 35.06889 | .35288  | .11535              | -.14466 | .00074  | .00067  | -.00866 |  |
| .154    | 2.205    | .00000 | 35.10807 | .56776  | .11825              | -.19432 | .00065  | -.00076 | -.01518 |  |
| .154    | 4.360    | .00000 | 35.13843 | .79254  | .12957              | -.23291 | .00066  | .00038  | -.01102 |  |
| .154    | 6.346    | .00000 | 35.12538 | .99101  | .14882              | -.27190 | .00046  | -.00020 | -.00790 |  |
| .154    | 8.274    | .00000 | 35.12262 | 1.17728 | .17474              | -.30837 | .00079  | -.00053 | -.00921 |  |
| .154    | 10.548   | .00000 | 35.17344 | 1.39971 | .21098              | -.34867 | .00095  | -.00103 | -.01105 |  |
| .154    | 12.464   | .00000 | 35.02992 | 1.57752 | .24901              | -.39068 | .00089  | -.00180 | -.01064 |  |
| .154    | 14.484   | .00000 | 35.08116 | 1.74459 | .29463              | -.42736 | -.00009 | -.00155 | -.00389 |  |
| .154    | 16.545   | .00000 | 35.17507 | 1.91319 | .34058              | -.44544 | .00007  | -.00095 | -.00514 |  |
| .155    | 18.518   | .00000 | 35.28086 | 2.01207 | .39007              | -.42473 | -.00035 | -.00034 | -.00488 |  |
| .155    | 20.548   | .00000 | 35.54040 | 2.07688 | .44901              | -.39493 | -.00014 | -.00058 | -.00601 |  |
| .155    | 22.448   | .00000 | 35.60126 | 2.10487 | .51649              | -.38668 | .00014  | -.00003 | -.00523 |  |
| .155    | 24.488   | .00000 | 35.54754 | 2.12262 | .60921              | -.43158 | .00076  | .00033  | -.00347 |  |
| .156    | 26.848   | .00000 | 36.12208 | 2.09816 | .71974              | -.51632 | .00110  | -.00447 | .00080  |  |
|         | GRADIENT | .00000 | -.00315  | .10931  | .00010              | -.02285 | -.00000 | .00001  | -.00036 |  |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2T55H15.6.1F20TS401

(RJF082) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = -11.700

| RUN NO. 82/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |         |         |
|---------------|----------|------------|---------------------------------|---------|---------|---------|---------|---------|---------|
| MACH          | ALPHA    | BETA       | Q(PSF)                          | CL      | CD      | CLM     | CLN     | CSL     | CY      |
| .155          | -2.773   | .00030     | 35.23695                        | -.06850 | .11472  | .24133  | .00118  | .00007  | -.01280 |
| .154          | .147     | .00000     | 35.09097                        | .24665  | .09866  | .18585  | .00098  | .00141  | -.00927 |
| .154          | 2.302    | .00000     | 35.04416                        | .48677  | .09876  | .14976  | .00075  | .00063  | -.00727 |
| .154          | 4.360    | .00000     | 35.18692                        | .71035  | .10746  | .11550  | .00090  | -.00014 | -.00936 |
| .154          | 6.385    | .00000     | 35.18528                        | .91879  | .12401  | .07378  | .00098  | -.00013 | -.00824 |
| .154          | 8.303    | .00000     | 35.11957                        | 1.10455 | .14612  | .04532  | .00108  | -.00053 | -.00717 |
| .154          | 10.396   | .00000     | 35.15566                        | 1.29396 | .17708  | .01114  | .00096  | -.00057 | -.00685 |
| .154          | 12.371   | .00000     | 35.20025                        | 1.48337 | .21172  | -.03508 | .00059  | -.00154 | -.00591 |
| .154          | 14.438   | .00000     | 35.18055                        | 1.67197 | .25358  | -.09161 | .00025  | -.00261 | -.00354 |
| .154          | 16.471   | .00000     | 35.20501                        | 1.83761 | .29610  | -.12908 | .00044  | -.00204 | -.00586 |
| .155          | 18.502   | .00000     | 35.52097                        | 1.94627 | .34889  | -.13997 | -.00063 | -.00037 | .00011  |
| .155          | 20.515   | .00000     | 35.47012                        | 2.02621 | .40443  | -.13050 | .00024  | -.00106 | -.00403 |
| .155          | 22.519   | .00000     | 35.53296                        | 2.05220 | .47232  | -.11436 | .00025  | -.00015 | -.00287 |
| .155          | 24.487   | .00000     | 35.65791                        | 2.05504 | .55363  | -.15147 | .00120  | .00034  | -.00089 |
| .156          | 26.884   | .00000     | 35.78880                        | 2.04676 | .66778  | -.22770 | -.00118 | -.00652 | .00693  |
|               | GRADIENT | .00000     | -.01042                         | .10936  | -.00111 | -.01769 | -.00005 | -.00004 | .00056  |

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CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1,2TS5H15.6,1F20TS401

(RJFD83) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 LORR = 6.000 ELEVON = -5.000  
 BDFLAP = -11.700

| RUN NO. 83/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |         |         |
|---------------|----------|------------|---------------------------------|---------|---------|---------|---------|---------|---------|
| MACH          | ALPHAW   | BETA       | Q(PSF)                          | CL      | CD      | CLM     | CLN     | CSL     | CY      |
| .154          | -2.765   | .00000     | 35.07737                        | -.04836 | .11178  | .16438  | .00087  | .00038  | -.00634 |
| .154          | .193     | .00000     | 35.03162                        | .27379  | .09758  | .10584  | .00067  | .00003  | -.00757 |
| .154          | 2.248    | .00000     | 34.97641                        | .51458  | .09805  | .05936  | .00087  | .00045  | -.00924 |
| .154          | 4.299    | .00000     | 35.18835                        | .72202  | .10777  | .02772  | .00055  | .00010  | -.00822 |
| .154          | 5.246    | .00000     | 35.18945                        | .81172  | .11522  | .01091  | .00027  | -.00027 | -.00385 |
| .154          | 6.393    | .00000     | 35.20204                        | .94417  | .12545  | -.01513 | .00131  | -.00007 | -.00899 |
| .155          | 7.375    | .00000     | 35.24796                        | 1.03266 | .13640  | -.03189 | .00056  | -.00088 | -.00727 |
| .154          | 8.277    | .00000     | 35.17912                        | 1.12262 | .14802  | -.04756 | .00091  | -.00129 | -.00839 |
| .154          | 9.476    | .00000     | 35.21059                        | 1.22338 | .16613  | -.06432 | .00074  | -.00112 | -.00597 |
| .154          | 10.461   | .00000     | 35.22789                        | 1.33079 | .18030  | -.08845 | .00127  | -.00080 | -.00865 |
| .154          | 11.356   | .00000     | 35.19855                        | 1.41252 | .19625  | -.10469 | .00072  | .00014  | -.00526 |
| .154          | 12.429   | .00000     | 35.14238                        | 1.50569 | .21702  | -.13271 | .00040  | -.00172 | -.00585 |
| .155          | 13.508   | .00000     | 35.23612                        | 1.61063 | .23834  | -.16451 | .00039  | -.00179 | -.00433 |
| .155          | 14.428   | .00000     | 35.24020                        | 1.69363 | .25710  | -.18886 | .00055  | -.00269 | -.00755 |
| .155          | 15.500   | .00000     | 35.34160                        | 1.78428 | .28094  | -.21136 | -.00013 | -.00196 | -.00383 |
| .155          | 16.565   | .00000     | 35.34940                        | 1.85903 | .30448  | -.22360 | -.00014 | -.00180 | -.00455 |
| .155          | 17.574   | .00000     | 35.48139                        | 1.91336 | .32856  | -.22998 | -.00012 | -.00104 | -.00206 |
| .154          | 18.465   | .00000     | 35.10048                        | 1.96991 | .35144  | -.23089 | -.00057 | -.00120 | -.00336 |
| .155          | 19.444   | .00000     | 35.34423                        | 2.00439 | .37761  | -.22407 | -.00052 | -.00086 | -.00518 |
| .155          | 20.545   | .00000     | 35.33369                        | 2.03941 | .41074  | -.21314 | -.00050 | -.00074 | -.00191 |
| .155          | 21.579   | .00000     | 35.36062                        | 2.06374 | .44366  | -.19664 | .00045  | -.00133 | -.00511 |
| .155          | 22.555   | .00000     | 35.45323                        | 2.06941 | .47923  | -.19390 | -.00028 | .00042  | -.00058 |
| .155          | 23.670   | .00000     | 35.58715                        | 2.07376 | .52785  | -.21246 | .00041  | .00020  | -.00058 |
| .156          | 24.507   | .00000     | 35.97679                        | 2.07262 | .56418  | -.23833 | .00179  | -.00115 | -.00514 |
| .156          | 25.600   | .00000     | 35.94208                        | 2.07415 | .61371  | -.26894 | .00196  | -.00111 | -.00319 |
| .156          | 26.879   | .00000     | 35.84171                        | 2.06658 | .67523  | -.32491 | .00051  | -.00449 | .00166  |
|               | GRADIENT | .00000     | .01015                          | .10964  | -.00070 | -.01968 | -.00003 | -.00002 | -.00033 |

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(CA-8) K3V9.1.2TS5H15.6.1F20TS401

(RJF084) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 TORB = 6.000 ELEVON = -5.000  
 BDFLAP = -11.700

| RUN NO. |          | B4/ 0  | RN/L =   | .00     | GRADIENT INTERVAL = |         | -5.00/ 5.00 |         |         |
|---------|----------|--------|----------|---------|---------------------|---------|-------------|---------|---------|
| MACH    | ALPHA    | BETA   | Q(PSF)   | CL      | CD                  | CLM     | CLN         | CSL     | CY      |
| .154    | -2.751   | .00000 | 35.00326 | -.01289 | .11007              | .07133  | .00096      | .00042  | -.00809 |
| .154    | .166     | .00000 | 34.92521 | .30401  | .09674              | .00772  | .00089      | .00213  | -.00641 |
| .154    | 2.373    | .00000 | 34.94161 | .56175  | .09830              | -.04252 | .00055      | .00139  | -.00739 |
| .154    | 4.252    | .00000 | 34.97755 | .74794  | .10875              | -.07157 | .00050      | -.00065 | -.00846 |
| .154    | 6.279    | .00000 | 34.97663 | .95577  | .12631              | -.11205 | .00056      | .00004  | -.00704 |
| .154    | 8.281    | .00000 | 35.02032 | 1.15151 | .15165              | -.14999 | .00052      | -.00049 | -.00590 |
| .154    | 10.237   | .00000 | 34.98211 | 1.33418 | .18227              | -.18533 | .00091      | -.00061 | -.00571 |
| .154    | 12.506   | .00000 | 35.08734 | 1.55751 | .22436              | -.24491 | .00063      | -.00097 | -.00412 |
| .154    | 14.343   | .00000 | 35.13705 | 1.72456 | .26220              | -.23444 | .00005      | -.00106 | -.00381 |
| .155    | 16.433   | .00000 | 35.27548 | 1.87794 | .30980              | -.33208 | -.00023     | -.00153 | -.00449 |
| .155    | 18.496   | .00000 | 35.37493 | 1.99769 | .36040              | -.32163 | -.00041     | -.00110 | -.00815 |
| .155    | 20.535   | .00000 | 35.50727 | 2.07000 | .41929              | -.29611 | -.00002     | -.00081 | -.00369 |
| .155    | 22.450   | .00000 | 35.65746 | 2.09247 | .48509              | -.28113 | -.00006     | .00017  | -.00050 |
| .155    | 24.536   | .00000 | 35.62006 | 2.09468 | .57427              | -.32253 | .00156      | -.00086 | -.00307 |
| .156    | 26.883   | .00000 | 35.72739 | 2.08810 | .68619              | -.41540 | .00072      | -.00437 | .00279  |
|         | GRADIENT | .00000 | -.00373  | .10954  | -.00033             | -.02074 | -.00007     | -.00013 | -.00006 |

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(CA-8) K3V9.1.2TS5

F20TS401

(RJF085) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = -11.700

| RUN NO.  |        | 85/ 0  | RN/L =   | .00     | GRADIENT INTERVAL = -5.00/ 5.00 |         |        |         |         |
|----------|--------|--------|----------|---------|---------------------------------|---------|--------|---------|---------|
| MACH     | ALPHA  | BETA   | Q(PSF)   | CL      | CD                              | CLM     | CLN    | CSL     | CY      |
| .155     | -2.902 | .00000 | 35.38773 | .00734  | .10792                          | -.10435 | .00057 | -.00028 | -.01124 |
| .154     | -1.834 | .00000 | 35.10535 | .12375  | .10045                          | -.10817 | .00086 | .00107  | -.01112 |
| .154     | .240   | .00000 | 35.16009 | .33803  | .09482                          | -.12122 | .00070 | .00011  | -.01175 |
| .154     | 2.242  | .00000 | 35.23514 | .56467  | .09609                          | -.13198 | .00078 | -.00012 | -.01503 |
| .154     | 4.253  | .00000 | 35.06506 | .76154  | .10657                          | -.13404 | .00094 | .00171  | -.01038 |
| .154     | 5.277  | .00000 | 35.05086 | .65167  | .11482                          | -.13494 | .00093 | .00067  | -.01004 |
| .155     | 6.346  | .00000 | 35.27409 | .94953  | .12496                          | -.13673 | .00086 | .00021  | -.00926 |
| .154     | 7.369  | .00000 | 35.03831 | 1.05570 | .13602                          | -.13449 | .00126 | -.00007 | -.01004 |
| .155     | 8.344  | .00000 | 35.36409 | 1.14440 | .14896                          | -.13270 | .00138 | -.00061 | -.01182 |
| .154     | 9.354  | .00000 | 35.24845 | 1.23510 | .16257                          | -.12907 | .00116 | -.00100 | -.01066 |
| .154     | 10.357 | .00000 | 35.08856 | 1.31977 | .17818                          | -.13189 | .00168 | -.00060 | -.01329 |
| .154     | 11.402 | .00000 | 34.82604 | 1.40257 | .19575                          | -.13057 | .00110 | -.00055 | -.01018 |
| .154     | 12.405 | .00000 | 35.12618 | 1.49955 | .21236                          | -.13472 | .00130 | -.00150 | -.01427 |
| .154     | 13.456 | .00000 | 35.23885 | 1.60443 | .23132                          | -.14154 | .00176 | -.00094 | -.01459 |
| .154     | 14.441 | .00000 | 35.15589 | 1.68618 | .25100                          | -.14607 | .00130 | -.00118 | -.01239 |
| .155     | 15.503 | .00000 | 35.34193 | 1.76086 | .27314                          | -.14496 | .00131 | -.00182 | -.01316 |
| .155     | 16.470 | .00000 | 35.53424 | 1.82144 | .29240                          | -.14007 | .00091 | -.00102 | -.00740 |
| .154     | 17.553 | .00000 | 35.24498 | 1.88441 | .31640                          | -.13308 | .00063 | .00010  | -.00580 |
| .155     | 18.468 | .00000 | 35.32606 | 1.93050 | .33834                          | -.12510 | .00040 | .00030  | -.00562 |
| .155     | 19.552 | .00000 | 35.64946 | 1.96792 | .36720                          | -.11048 | .00034 | .00057  | -.00654 |
| .155     | 20.526 | .00000 | 35.50459 | 2.00314 | .39553                          | -.09669 | .00049 | .00035  | -.00487 |
| .155     | 21.495 | .00000 | 35.50240 | 2.02646 | .42622                          | -.07871 | .00056 | .00089  | -.00499 |
| .155     | 22.499 | .00000 | 35.49312 | 2.03325 | .46079                          | -.06261 | .00158 | .00012  | -.00971 |
| .155     | 23.499 | .00000 | 35.51098 | 2.02831 | .50074                          | -.05302 | .00199 | .00007  | -.00576 |
| .156     | 24.533 | .00000 | 36.06491 | 2.01514 | .54066                          | -.03869 | .00277 | .00047  | -.00951 |
| .156     | 25.513 | .00000 | 35.98897 | 2.00425 | .58103                          | -.02347 | .00275 | .00027  | -.00783 |
| .156     | 26.883 | .00000 | 35.84024 | 1.97595 | .63565                          | .00956  | .00176 | -.00366 | -.00319 |
| GRADIENT |        | .00000 | -.02510  | .10598  | -.00024                         | -.00451 | .00003 | .00014  | -.00011 |

REPRODUCIBILITY OF THE  
 ORIGINAL PAGE IS POOR

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CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5

F20TS402

(RJF086) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 TORB = 6.000 ELEVON = -5.000  
 BOFLAP = .000

| RUN NO. |          | 86/ 0  | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |         |
|---------|----------|--------|------------|---------------------------------|---------|---------|---------|---------|---------|
| MACH    | ALPHAW   | BETA   | Q(PSF)     | CL                              | CD      | CLM     | CLN     | CSL     | CY      |
| .155    | -2.865   | .00000 | 35.39975   | -.01222                         | .12598  | -.08353 | .00135  | .00204  | -.00693 |
| .155    | -1.872   | .00000 | 35.29653   | .10477                          | .11809  | -.08561 | .00137  | .00039  | -.01082 |
| .154    | .213     | .00000 | 35.19221   | .33367                          | .11103  | -.10331 | .00153  | .00174  | -.00693 |
| .154    | 2.251    | .00000 | 35.21515   | .54155                          | .11320  | -.11365 | .00102  | .00067  | -.00857 |
| .154    | 4.304    | .00000 | 35.18018   | .74614                          | .12237  | -.11724 | .00104  | .00124  | -.00860 |
| .154    | 5.287    | .00000 | 35.17899   | .84407                          | .12979  | -.11598 | .00137  | .00035  | -.01172 |
| .155    | 6.297    | .00000 | 35.27241   | .92959                          | .13897  | -.11558 | .00130  | .00004  | -.01154 |
| .154    | 7.345    | .00000 | 35.22787   | 1.02633                         | .15033  | -.11065 | .00125  | .00106  | -.00997 |
| .154    | 8.354    | .00000 | 35.21821   | 1.12115                         | .16332  | -.11257 | .00121  | -.00017 | -.00836 |
| .154    | 9.386    | .00000 | 35.05033   | 1.21933                         | .17632  | -.11072 | .00138  | .00008  | -.01026 |
| .154    | 10.422   | .00000 | 35.12656   | 1.30754                         | .19201  | -.10885 | .00119  | -.00136 | -.00972 |
| .154    | 11.379   | .00000 | 35.15246   | 1.39001                         | .20710  | -.10758 | .00154  | .00033  | -.01055 |
| .154    | 12.407   | .00000 | 35.21374   | 1.48162                         | .22533  | -.10961 | .00138  | .00000  | -.00799 |
| .154    | 13.431   | .00000 | 35.22643   | 1.57201                         | .24437  | -.11262 | .00115  | -.00262 | -.01053 |
| .155    | 14.429   | .00000 | 35.26527   | 1.64542                         | .26544  | -.11380 | .00125  | -.00081 | -.00570 |
| .154    | 15.444   | .00000 | 35.24836   | 1.73506                         | .28373  | -.11503 | .00121  | -.00025 | -.00757 |
| .155    | 16.525   | .00000 | 35.29464   | 1.80253                         | .30797  | -.10902 | .00138  | -.00112 | -.01004 |
| .155    | 17.532   | .00000 | 35.36813   | 1.85845                         | .33158  | -.10240 | .00088  | .00035  | -.00350 |
| .155    | 18.493   | .00000 | 35.43226   | 1.90792                         | .35374  | -.09293 | .00048  | -.00077 | -.00831 |
| .155    | 19.493   | .00000 | 35.43516   | 1.94914                         | .37968  | -.07964 | .00050  | .00026  | -.00684 |
| .155    | 20.499   | .00000 | 35.43954   | 1.98400                         | .40850  | -.06341 | .00062  | .00035  | -.00574 |
| .155    | 21.491   | .00020 | 35.44497   | 2.00499                         | .43845  | -.04607 | .00080  | .00070  | -.00258 |
| .155    | 22.508   | .00000 | 35.55719   | 2.01417                         | .47254  | -.03290 | .00090  | .00118  | -.00453 |
| .155    | 23.516   | .00000 | 35.56836   | 2.01057                         | .51319  | -.02227 | .00156  | -.00020 | -.00435 |
| .156    | 24.502   | .00000 | 35.79064   | 2.00096                         | .55065  | -.00931 | .00202  | .00085  | -.00535 |
| .156    | 25.510   | .00000 | 35.78376   | 1.98918                         | .59214  | .00261  | .00211  | .00136  | -.00463 |
| .156    | 26.939   | .00000 | 36.02085   | 1.96278                         | .64790  | .03111  | .00137  | -.00248 | -.00310 |
|         | GRADIENT | .00000 | -.02668    | .10555                          | -.00049 | -.00517 | -.00005 | -.00005 | -.00002 |

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(CA-8) K3V9.1.2TS5

F20TS401

(RJF087) (18 JUN 76)

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 IORB = 8.000 ELEVON = -5.000  
 BDFLAP = -11.700

| RUN NO. 87/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |        |         |        |         |         |
|---------------|----------|------------|---------------------------------|---------|--------|---------|--------|---------|---------|
| MACH          | ALPHAW   | BETA       | Q(PSF)                          | CL      | CD     | CLM     | CLN    | CSL     | CY      |
| .154          | -2.869   | .00000     | 35.24834                        | .03098  | .10943 | -.10856 | .00107 | .00001  | -.01293 |
| .154          | -1.814   | .00000     | 35.17296                        | .17894  | .10057 | -.11208 | .00126 | .00065  | -.00404 |
| .154          | .233     | .00000     | 35.06072                        | .38192  | .09749 | -.12665 | .00165 | .00053  | -.01135 |
| .154          | 2.264    | .00000     | 35.23359                        | .58940  | .10184 | -.13985 | .00166 | .00089  | -.01008 |
| .154          | 4.300    | .00000     | 35.11722                        | .78981  | .11507 | -.14057 | .00181 | -.00018 | -.01093 |
| .154          | 5.272    | .00000     | 35.18994                        | .88747  | .12307 | -.14162 | .00215 | -.00072 | -.01181 |
| .154          | 6.335    | .00000     | 35.16774                        | .98970  | .13370 | -.14046 | .00207 | -.00105 | -.01468 |
| .154          | 7.359    | .00000     | 35.21529                        | 1.08251 | .14617 | -.14004 | .00242 | -.00143 | -.01649 |
| .154          | 8.352    | .00000     | 35.23777                        | 1.17746 | .15950 | -.13549 | .00234 | -.00162 | -.01416 |
| .154          | 9.426    | .00000     | 35.09716                        | 1.28185 | .17499 | -.13454 | .00239 | -.00012 | -.01206 |
| .154          | 10.439   | .00000     | 35.07427                        | 1.35608 | .19222 | -.13324 | .00235 | -.00069 | -.01116 |
| .155          | 11.401   | .00000     | 35.30654                        | 1.43809 | .20857 | -.13036 | .00202 | -.00152 | -.01355 |
| .155          | 12.407   | .00000     | 35.29952                        | 1.52330 | .22835 | -.13409 | .00215 | -.00123 | -.01456 |
| .155          | 13.436   | .00000     | 35.31522                        | 1.63032 | .24832 | -.14024 | .00203 | -.00040 | -.01209 |
| .155          | 14.444   | .00000     | 35.38832                        | 1.71642 | .26925 | -.14362 | .00221 | -.00068 | -.01300 |
| .155          | 15.479   | .00000     | 35.37110                        | 1.78898 | .29169 | -.14249 | .00209 | -.00130 | -.01317 |
| .155          | 16.492   | .00000     | 35.38577                        | 1.85782 | .31363 | -.13866 | .00168 | -.00053 | -.01180 |
| .155          | 17.515   | .00000     | 35.38681                        | 1.91301 | .33793 | -.12981 | .00093 | -.00082 | -.00992 |
| .155          | 18.495   | .00000     | 35.51735                        | 1.96227 | .36399 | -.11879 | .00048 | -.00008 | -.00956 |
| .155          | 19.491   | .00000     | 35.42417                        | 2.00088 | .39065 | -.10352 | .00060 | .00053  | -.00920 |
| .155          | 20.500   | .00000     | 35.33766                        | 2.03257 | .42228 | -.08932 | .00109 | .00041  | -.00899 |
| .155          | 21.497   | .00000     | 35.40693                        | 2.05521 | .45527 | -.07320 | .00156 | .00017  | -.00879 |
| .155          | 22.558   | .00000     | 35.41318                        | 2.06338 | .49321 | -.05129 | .00239 | -.00006 | -.01172 |
| .156          | 23.513   | .00000     | 35.78328                        | 2.05968 | .53165 | -.03814 | .00263 | -.00038 | -.00918 |
| .156          | 24.507   | .00000     | 35.77230                        | 2.05104 | .56879 | -.02080 | .00307 | .00005  | -.01077 |
| .156          | 25.596   | .00000     | 35.87930                        | 2.03077 | .61072 | .00203  | .00312 | .00067  | -.00921 |
| .156          | 26.963   | .00000     | 35.99763                        | 2.00169 | .66500 | .03368  | .00213 | -.00443 | -.01269 |
|               | GRADIENT | .00000     | -.00966                         | .10417  | .00087 | -.00497 | .00010 | -.00002 | -.00021 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F20TS401

(RJF088) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = 3.000 ELEVTR = .000  
 TORB = 8.000 ELEVON = -5.000  
 BDFLAP = -11.700

RUN NO. 88/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .154 | -2.774   | .00000 | 35.02027 | .02960  | .11219 | -.02592 | .00140  | -.00015 | -.01309 |
| .154 | -1.857   | .00000 | 34.99418 | .13262  | .10592 | -.04095 | .00150  | -.00051 | -.01637 |
| .154 | .237     | .00000 | 34.99051 | .37217  | .10089 | -.09166 | .00153  | -.00047 | -.01392 |
| .155 | 2.285    | .00000 | 35.45753 | .58891  | .10573 | -.13950 | .00184  | .00062  | -.01501 |
| .154 | 4.289    | .00000 | 34.82395 | .80249  | .11873 | -.17480 | .00151  | +.00035 | -.01128 |
| .154 | 6.322    | .00000 | 35.03399 | 1.00331 | .13956 | -.21156 | .00187  | -.00126 | -.01327 |
| .155 | 8.393    | .00000 | 35.43139 | 1.21165 | .16845 | -.25135 | .00233  | -.00118 | -.01351 |
| .154 | 10.453   | .00000 | 35.13129 | 1.40490 | .20472 | -.28522 | .00237  | -.00093 | -.01115 |
| .154 | 12.441   | .00000 | 34.86746 | 1.56928 | .24521 | -.32291 | .00140  | -.00219 | -.00977 |
| .155 | 14.447   | .00000 | 35.43536 | 1.77083 | .29040 | -.37556 | .00073  | -.00181 | -.00545 |
| .155 | 16.472   | .00000 | 35.34023 | 1.91866 | .33914 | -.40283 | .00106  | -.00192 | -.00967 |
| .154 | 18.504   | .00000 | 35.12572 | 2.03059 | .39123 | -.39565 | -.00067 | -.00063 | -.00271 |
| .155 | 20.517   | .00000 | 35.65233 | 2.10138 | .45311 | -.37463 | .00030  | -.00082 | -.00796 |
| .155 | 22.567   | .00000 | 35.57373 | 2.13451 | .52884 | -.36861 | .00096  | -.00053 | -.00639 |
| .156 | 24.552   | .00000 | 35.88303 | 2.14118 | .61468 | -.39325 | .00150  | -.00108 | -.00615 |
| .156 | 26.964   | .00000 | 36.13010 | 2.11806 | .72758 | -.47261 | .00170  | -.00519 | -.00818 |
|      | GRADIENT | .00000 | .00348   | .10948  | .00088 | -.02174 | .00003. | .00005  | .00033  |



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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2T55H15.6.1F20T5401

(RJF089) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 TORB = 8.000 ELEVON = -5.000  
 BDFLAP = -11.700

RUN NO. 89/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN    | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|--------|---------|---------|
| .155 | -2.768   | .00000 | 35.33699 | -.01052 | .11137 | .11277  | .00128 | -.00014 | -.00820 |
| .155 | -1.811   | .00000 | 35.31857 | .10458  | .10469 | .09477  | .00147 | -.00066 | -.01241 |
| .155 | .236     | .00000 | 35.27375 | .33481  | .09864 | .04782  | .00170 | .00151  | -.01115 |
| .154 | 2.303    | .00000 | 35.20016 | .55423  | .10205 | .00315  | .00167 | .00061  | -.01237 |
| .154 | 4.266    | .00000 | 35.01606 | .75736  | .11378 | -.03001 | .00187 | -.00080 | -.01272 |
| .155 | 6.347    | .00000 | 35.28558 | .98128  | .13361 | -.07191 | .00225 | -.00074 | -.01404 |
| .155 | 8.331    | .00000 | 35.52788 | 1.16230 | .16213 | -.10256 | .00226 | -.00095 | -.01069 |
| .155 | 10.367   | .00000 | 35.25953 | 1.36330 | .19474 | -.13919 | .00198 | -.00115 | -.00951 |
| .155 | 12.494   | .00000 | 35.25609 | 1.56310 | .23605 | -.13583 | .00211 | .00005  | -.00959 |
| .155 | 14.549   | .00000 | 35.27352 | 1.73422 | .28155 | -.23136 | .00181 | -.00075 | -.00726 |
| .155 | 16.505   | .00000 | 35.49270 | 1.88247 | .32774 | -.25381 | .00133 | -.00171 | -.00873 |
| .155 | 18.494   | .00000 | 35.49246 | 1.99477 | .37963 | -.25970 | .00052 | -.00039 | -.00564 |
| .155 | 20.559   | .00000 | 35.35799 | 2.07154 | .44123 | -.24809 | .00036 | -.00021 | -.00289 |
| .155 | 22.554   | .00000 | 35.39965 | 2.10833 | .51320 | -.23641 | .00102 | -.00052 | -.00353 |
| .156 | 24.640   | .00000 | 35.74988 | 2.10905 | .60107 | -.26632 | .00192 | -.00106 | -.00735 |
| .156 | 26.989   | .00000 | 35.68617 | 2.09410 | .70963 | -.34631 | .00163 | -.00498 | -.00642 |
|      | GRADIENT | .00000 | -.04254  | .10896  | .00029 | -.02074 | .00007 | -.00001 | -.00044 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F20TS401

(RJF090) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 IORB = 8.000 ELEVON = -5.000  
 BDFLAP = -11.700

| RUN NO. |          | 90/0   | RN/L =   | .00     | GRADIENT INTERVAL = -5.00/ 5.00 |         |        |         |         |
|---------|----------|--------|----------|---------|---------------------------------|---------|--------|---------|---------|
| MACH    | ALPHA    | BETA   | Q(PSF)   | CL      | CD                              | CLM     | CLN    | CSL     | CY      |
| .154    | -2.723   | .00000 | 35.19951 | -.05009 | .11307                          | .27745  | .00175 | .00075  | -.01019 |
| .154    | -1.853   | .00000 | 35.22273 | .05130  | .10613                          | .26720  | .00191 | .00067  | -.01124 |
| .154    | .211     | .00000 | 35.15983 | .28163  | .09813                          | .22575  | .00205 | -.00046 | -.01036 |
| .154    | 2.298    | .00000 | 35.21199 | .51594  | .09919                          | .18362  | .00237 | -.00099 | -.01740 |
| .154    | 4.264    | .00000 | 35.11015 | .70946  | .10973                          | .15270  | .00203 | -.00029 | -.01075 |
| .155    | 6.320    | .00000 | 35.43347 | .90878  | .12821                          | .11561  | .00199 | -.00037 | -.00925 |
| .154    | 8.366    | .00000 | 35.04529 | 1.11707 | .15427                          | .07721  | .00248 | -.00126 | -.00819 |
| .154    | 10.261   | .00000 | 35.17440 | 1.30842 | .18370                          | .04607  | .00280 | -.00014 | -.00746 |
| .154    | 12.488   | .00000 | 35.20123 | 1.50185 | .22534                          | .00503  | .00193 | -.00122 | -.00533 |
| .155    | 14.425   | .00000 | 35.27494 | 1.67459 | .26632                          | -.04234 | .00253 | -.00152 | -.01098 |
| .155    | 16.451   | .00000 | 35.42497 | 1.83538 | .31246                          | -.07830 | .00186 | -.00136 | -.00785 |
| .155    | 18.490   | .00000 | 35.53603 | 1.95589 | .36461                          | -.09429 | .00100 | -.00056 | -.00681 |
| .155    | 20.564   | .00000 | 35.67576 | 2.03275 | .42622                          | -.08867 | .00072 | -.00009 | -.00389 |
| .155    | 22.582   | .00000 | 35.65373 | 2.06245 | .49697                          | -.07440 | .00145 | -.00072 | -.00572 |
| .156    | 24.527   | .00000 | 35.95033 | 2.06967 | .57769                          | -.09891 | .00247 | -.00097 | -.00843 |
| .156    | 26.994   | .00000 | 35.91788 | 2.05478 | .68782                          | -.07676 | .00094 | -.00378 | -.00303 |
|         | GRADIENT | .00000 | -.01086  | .10928  | -.00058                         | -.01845 | .00005 | -.00020 | -.00039 |

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CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F20TS401

(RJF091) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 TORB = 8.000 ELEVON = -5.000  
 BDFLAP = -11.700

| RUN NO. |          | 91/ 0  | RN/L =   | .00     | GRADIENT INTERVAL = |         | -5.00/  | 5.00    |         |  |
|---------|----------|--------|----------|---------|---------------------|---------|---------|---------|---------|--|
| MACH    | ALPHAW   | BETA   | Q(PSF)   | CL      | CD                  | CLM     | CLN     | CSL     | CY      |  |
| .155    | -2.702   | .00000 | 35.40932 | -.01744 | .11058              | .20253  | .00192  | -.00051 | -.01447 |  |
| .155    | -1.868   | .00000 | 35.35300 | .06504  | .10470              | .18507  | .00177  | -.00038 | -.01049 |  |
| .155    | .201     | .00000 | 35.32421 | .33200  | .09795              | .13842  | .00185  | .00021  | -.01298 |  |
| .155    | 2.259    | .00000 | 35.36937 | .53503  | .09933              | .09198  | .00202  | .00013  | -.01159 |  |
| .155    | 4.269    | .00000 | 35.36525 | .73316  | .11101              | .05887  | .00220  | .00023  | -.01225 |  |
| .155    | 5.316    | .00000 | 35.28983 | .84617  | .11925              | .03955  | .00225  | .00005  | -.01002 |  |
| .155    | 6.314    | .00000 | 35.31986 | .93926  | .12993              | .02186  | .00243  | .00002  | -.01091 |  |
| .155    | 7.366    | .00000 | 35.28489 | 1.04808 | .14322              | .00260  | .00263  | -.00070 | -.01039 |  |
| .155    | 8.358    | .00000 | 35.25717 | 1.15423 | .15701              | -.01566 | .00296  | .00049  | -.01020 |  |
| .155    | 9.375    | .00000 | 35.25021 | 1.23172 | .17350              | -.02925 | .00260  | -.00064 | -.00806 |  |
| .154    | 10.450   | .00000 | 35.23320 | 1.32648 | .19210              | -.04373 | .00261  | -.00143 | -.00970 |  |
| .155    | 11.414   | .00000 | 35.24657 | 1.41206 | .20935              | -.06150 | .00225  | -.00206 | -.00734 |  |
| .155    | 12.423   | .00000 | 35.25474 | 1.51705 | .22812              | -.08704 | .00216  | -.00050 | -.00707 |  |
| .154    | 13.418   | .00000 | 35.16047 | 1.60521 | .25021              | -.10801 | .00205  | -.00169 | -.00695 |  |
| .155    | 14.499   | .00000 | 35.29174 | 1.70539 | .27371              | -.13553 | .00193  | -.00225 | -.00901 |  |
| .155    | 15.454   | .00000 | 35.37479 | 1.79005 | .29573              | -.15642 | .00135  | -.00090 | -.00339 |  |
| .155    | 16.477   | .00000 | 35.31944 | 1.85988 | .31938              | -.17009 | .00133  | -.00201 | -.00494 |  |
| .155    | 17.499   | .00000 | 35.37697 | 1.92241 | .34475              | -.17747 | .00102  | -.00130 | -.00690 |  |
| .155    | 18.501   | .00000 | 35.27874 | 1.97178 | .37132              | -.18055 | .00045  | -.00047 | -.00697 |  |
| .155    | 19.520   | .00000 | 35.59519 | 2.01040 | .40095              | -.17848 | .00065  | -.00009 | -.00424 |  |
| .156    | 20.503   | .00000 | 35.70226 | 2.04942 | .43235              | -.16868 | -.00006 | .00016  | -.00179 |  |
| .156    | 21.580   | .00000 | 35.59504 | 2.07008 | .46712              | -.15902 | .00105  | -.00100 | -.00484 |  |
| .155    | 22.530   | .00000 | 35.54249 | 2.08789 | .50278              | -.15491 | .00195  | -.00102 | -.00573 |  |
| .156    | 23.523   | .00000 | 35.68569 | 2.08914 | .54423              | -.16498 | .00215  | -.00105 | -.00505 |  |
| .155    | 24.560   | .00000 | 35.62850 | 2.09250 | .58884              | -.18172 | .00248  | -.00078 | -.00639 |  |
| .156    | 25.528   | .00000 | 35.99621 | 2.08554 | .63114              | -.21102 | .00221  | -.00126 | -.00582 |  |
| .156    | 26.999   | .00000 | 36.01522 | 2.08090 | .70067              | 26958   | .00137  | -.00435 | -.00402 |  |
|         | GRADIENT | .00700 | -.00280  | .10914  | -.00005             | -.02102 | .00005  | .00011  | .00013  |  |

REPRODUCIBILITY OF THE  
 ORIGINAL PAGE IS POOR

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F20TS401

(RJF092) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -23.000  
 TORB = 8.000 ELEVON = -5.000  
 BDFLAP = -11.700

RUN NO. 92/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q (PSF)  | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -2.698   | .00000 | 35.21489 | -.12978 | .12427  | .62574  | .00204  | -.00008 | -.01442 |
| .155 | -1.805   | .00000 | 35.23018 | -.03732 | .11664  | .61304  | .00188  | .00032  | -.01434 |
| .155 | .196     | .00000 | 35.23907 | .19142  | .10592  | .58226  | .00232  | -.00022 | -.01623 |
| .155 | 2.258    | .00000 | 35.29709 | .41535  | .10354  | .54326  | .00239  | .00008  | -.01471 |
| .154 | 4.289    | .00000 | 35.19059 | .61781  | .11382  | .51254  | .00225  | .00017  | -.01438 |
| .155 | 6.318    | .00000 | 35.26109 | .82961  | .12523  | .47362  | .00290  | .00088  | -.01248 |
| .155 | 8.371    | .00000 | 35.27585 | 1.02785 | .14989  | .42988  | .00301  | -.00043 | -.01250 |
| .155 | 10.395   | .00000 | 35.26098 | 1.22160 | .17910  | .39155  | .00256  | .00000  | -.00997 |
| .154 | 12.435   | .00000 | 35.19940 | 1.40061 | .21426  | .35179  | .00270  | -.00112 | -.01319 |
| .154 | 14.450   | .00000 | 35.20054 | 1.58047 | .25505  | .30926  | .00259  | -.00074 | -.01237 |
| .154 | 16.498   | .00000 | 35.14649 | 1.74957 | .29805  | .27812  | .00191  | -.00012 | -.00914 |
| .155 | 18.494   | .00000 | 35.34724 | 1.86075 | .34678  | .26730  | .00093  | .00385  | -.00713 |
| .155 | 20.479   | .00000 | 35.51666 | 1.93945 | .40417  | .25892  | .00019  | .00026  | -.00457 |
| .155 | 22.523   | .00000 | 35.54633 | 1.98402 | .47193  | .26248  | .00142  | .00001  | -.00706 |
| .155 | 24.492   | .00000 | 35.54314 | 1.99012 | .55229  | .22720  | .00144  | .00011  | -.00582 |
| .157 | 27.041   | .00000 | 36.25049 | 1.95037 | .66975  | .18135  | -.00450 | -.01328 | .00049  |
|      | GRADIENT | .00000 | .00045   | .10793  | -.00204 | -.01647 | .00005  | .00001  | -.00000 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K2V9.1.2TS5H15.6.1F20TS401

(RJF093) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

| RUN NO. 93/ 0 |          | RN/L = .00 |          | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |         |
|---------------|----------|------------|----------|---------------------------------|---------|---------|---------|---------|---------|
| MACH          | ALPHA    | BETA       | Q(PSF)   | CL                              | CD      | CLM     | CLN     | CSL     | CY      |
| .155          | -2.740   | .00000     | 35.33123 | -.03443                         | .11253  | .10909  | .00119  | .00042  | -.01121 |
| .154          | .189     | .00000     | 35.15241 | .28876                          | .09775  | .04267  | .00104  | -.00021 | -.01346 |
| .154          | 2.244    | .00000     | 35.10423 | .52124                          | .09787  | -.00279 | .00093  | -.00020 | -.01212 |
| .154          | 4.326    | .00000     | 35.12194 | .73125                          | .10856  | -.03665 | .00057  | .00036  | -.00742 |
| .154          | 6.297    | .00000     | 35.08503 | .91825                          | .12580  | -.07453 | .00042  | -.00062 | -.00879 |
| .155          | 8.372    | .00000     | 35.20480 | 1.12971                         | .14990  | -.11897 | .00042  | -.00075 | -.00881 |
| .155          | 10.259   | .00000     | 35.22797 | 1.30764                         | .17785  | -.15630 | .00046  | -.00147 | -.00636 |
| .155          | 12.427   | .00000     | 35.20111 | 1.50465                         | .21472  | -.20440 | .00051  | -.00148 | -.00729 |
| .155          | 14.478   | .00000     | 35.28931 | 1.69928                         | .25531  | -.26232 | .00066  | -.00133 | -.00874 |
| .155          | 16.500   | .00000     | 35.49209 | 1.84842                         | .29787  | -.29400 | .00029  | -.00152 | -.00908 |
| .155          | 18.556   | .00000     | 35.31415 | 1.96103                         | .34712  | -.30066 | -.00014 | -.00005 | -.00720 |
| .155          | 20.586   | .00000     | 35.34174 | 2.06958                         | .53562  | .05438  | .00017  | .00087  | -.00653 |
|               | GRADIENT | .00000     | -.03047  | .10890                          | -.00071 | -.02086 | -.00008 | -.00002 | .00049  |

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(CA-8) K2V9.1.2TS5H15.6.1F20TS401

(RJF094) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 TORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

| RUN NO. 94/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |         |         |
|---------------|----------|------------|---------------------------------|---------|---------|---------|---------|---------|---------|
| MACH          | ALPHAW   | BETA       | Q(PSF)                          | CL      | CD      | CLM     | CLN     | CSL     | CY      |
| .155          | -2.747   | .00000     | 35.26900                        | -.03270 | .11405  | .10591  | .00078  | .00008  | -.01284 |
| .155          | .141     | .00000     | 35.21295                        | .28250  | .09918  | .04305  | .00085  | .00091  | -.01103 |
| .154          | 2.222    | .00000     | 35.16805                        | .51014  | .10027  | -.00264 | .00058  | .00097  | -.00970 |
| .155          | 4.351    | .00000     | 35.19659                        | .73335  | .10946  | -.04111 | .00037  | .00070  | -.01294 |
| .155          | 5.299    | .00000     | 35.21312                        | .82041  | .11641  | -.05684 | .00018  | -.00029 | -.00996 |
| .154          | 6.384    | .00000     | 35.17853                        | .93660  | .12593  | -.08074 | .00001  | -.00013 | -.00830 |
| .155          | 7.394    | .00000     | 35.24665                        | 1.03502 | .13691  | -.10336 | .00013  | -.00034 | -.00687 |
| .155          | 8.376    | .00000     | 35.25084                        | 1.13007 | .14897  | -.12339 | .00041  | .00071  | -.00811 |
| .155          | 10.357   | .00000     | 35.27587                        | 1.32881 | .17708  | -.16488 | .00055  | -.00074 | -.00988 |
| .155          | 11.502   | .00000     | 35.35094                        | 1.42253 | .19736  | -.18736 | .00066  | -.00075 | -.01043 |
| .155          | 12.458   | .00000     | 35.28907                        | 1.52544 | .21396  | -.21604 | .00075  | -.00007 | -.00984 |
| .154          | 13.494   | .00000     | 35.14841                        | 1.62155 | .23506  | -.24231 | .00064  | -.00084 | -.00983 |
| .154          | 14.500   | .00000     | 35.12484                        | 1.70432 | .25596  | -.26750 | .00047  | -.00129 | -.00860 |
| .154          | 15.551   | .00000     | 35.13343                        | 1.79489 | .27873  | -.28792 | .00031  | -.00091 | -.01008 |
| .154          | 16.449   | .00000     | 35.13460                        | 1.85655 | .30062  | -.29631 | .00027  | -.00123 | -.01003 |
| .155          | 17.519   | .00000     | 35.26941                        | 1.91774 | .32389  | -.30365 | -.00036 | -.00084 | -.00749 |
| .155          | 18.486   | .00000     | 35.43232                        | 1.96684 | .34651  | -.30254 | -.00024 | -.00021 | -.00909 |
| .155          | 19.449   | .00000     | 35.31506                        | 2.00942 | .37081  | -.29400 | -.00074 | -.00028 | -.00841 |
| .155          | 20.548   | .00000     | 35.38480                        | 2.03405 | .40107  | -.28324 | -.00103 | -.00004 | -.00648 |
| .155          | 21.569   | .00000     | 35.40533                        | 2.05256 | .43348  | -.26601 | -.00031 | -.00033 | -.00681 |
| .155          | 22.568   | .00000     | 35.45646                        | 2.05664 | .47203  | -.27082 | -.00013 | -.00055 | -.00311 |
| .155          | 23.492   | .00000     | 35.37907                        | 2.05386 | .51066  | -.28946 | .00041  | -.00099 | -.00560 |
| .155          | 24.498   | .00000     | 35.54151                        | 2.04923 | .55205  | -.31940 | .00044  | -.00125 | -.00685 |
| .155          | 25.549   | .00000     | 35.50766                        | 2.04573 | .59810  | -.36818 | .00007  | -.00075 | -.00690 |
| .155          | 26.911   | .00000     | 35.48481                        | 2.03273 | .65677  | -.43599 | -.00075 | -.00263 | -.00449 |
|               | GRADIENT | .00000     | -.01163                         | .10911  | -.00072 | -.02087 | -.00006 | .00009  | .00007  |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K2V9.1.2TS5H15.6.1F20TS401

(RJF095) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 95/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -2.721   | .00000 | 35.21262 | -.07054 | .11666  | .18943  | .00109  | .00030  | -.01504 |
| .154 | .171     | .00000 | 35.12256 | .25125  | .10020  | .13643  | .00076  | .00061  | -.01036 |
| .155 | 2.400    | .00000 | 35.22721 | .50260  | .09954  | .08938  | .00061  | .00048  | -.01297 |
| .155 | 4.213    | .00000 | 35.31861 | .67989  | .10765  | .05328  | .00039  | -.00023 | -.01376 |
| .155 | 6.307    | .00000 | 35.34772 | .89360  | .12328  | .02408  | .00001  | -.00071 | -.00781 |
| .155 | 8.351    | .00000 | 35.39337 | 1.09763 | .14576  | -.01948 | .00050  | -.00059 | -.01087 |
| .154 | 10.361   | .00000 | 35.05508 | 1.28925 | .17387  | -.05937 | .00073  | .00091  | -.00964 |
| .154 | 12.383   | .00000 | 35.02356 | 1.47684 | .20708  | -.10497 | .00077  | -.00052 | -.00951 |
| .154 | 14.420   | .00000 | 34.99756 | 1.67846 | .24843  | -.16090 | .00064  | -.00130 | -.01099 |
| .154 | 16.467   | .00000 | 35.04811 | 1.82579 | .29180  | -.19150 | .00023  | -.00142 | -.01138 |
| .155 | 18.484   | .00000 | 35.21789 | 1.94322 | .34013  | -.20564 | .00014  | .00011  | -.00924 |
| .155 | 20.597   | .00000 | 35.43339 | 2.01955 | .39662  | -.19434 | -.00035 | -.00103 | -.00884 |
| .155 | 22.621   | .00000 | 35.45158 | 2.03716 | .46482  | -.18258 | -.00041 | -.00035 | -.00521 |
| .155 | 24.647   | .00000 | 35.55119 | 2.03409 | .55162  | -.24146 | .00055  | -.00096 | -.00772 |
| .155 | 26.919   | .00000 | 35.51187 | 2.00890 | .64470  | -.35946 | -.00062 | -.00255 | -.00561 |
|      | GRADIENT | .00000 | .01623   | .10892  | -.00144 | -.01854 | -.00010 | -.00007 | .00011  |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K2V9.1.2TS5H15.6.1F20TS401

(RJF096) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -6.000 ELEVTR = .000  
 TORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

| RUN NO. |          | 0/ 0   | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |         |
|---------|----------|--------|------------|---------------------------------|---------|---------|---------|---------|---------|
| MACH    | ALPHAW   | BETA   | Q(PSF)     | CL                              | CD      | CLM     | CLN     | CSL     | CY      |
| .154    | -2.699   | .00000 | 35.08176   | -.08362                         | .11848  | .27675  | .00108  | .00144  | -.01371 |
| .154    | .182     | .00000 | 35.03744   | .25020                          | .10053  | .21752  | .00131  | -.00029 | -.01497 |
| .154    | 2.188    | .00000 | 35.05094   | .45587                          | .10032  | .18176  | .00093  | -.00037 | -.01698 |
| .154    | 4.290    | .00000 | 34.98959   | .66396                          | .10720  | .16050  | .00049  | .00082  | -.01151 |
| .154    | 6.324    | .00000 | 35.00702   | .87772                          | .12103  | .12517  | .00050  | .00029  | -.01387 |
| .154    | 8.414    | .00000 | 35.07883   | 1.07520                         | .14319  | .08595  | .00070  | .00039  | -.01181 |
| .154    | 10.312   | .00000 | 35.13123   | 1.25527                         | .16906  | .05077  | .00031  | -.00090 | -.01062 |
| .154    | 12.524   | .00000 | 35.11309   | 1.47431                         | .20500  | -.00512 | .00095  | .00063  | -.00998 |
| .154    | 14.433   | .00000 | 35.15178   | 1.63702                         | .24292  | -.05157 | .00024  | -.00228 | -.00634 |
| .154    | 16.398   | .00000 | 35.16010   | 1.79382                         | .28337  | -.08837 | .00025  | -.00078 | -.01135 |
| .155    | 18.459   | .00000 | 35.28985   | 1.91463                         | .33227  | -.10713 | .00049  | .00028  | -.01137 |
| .155    | 20.630   | .00000 | 35.34142   | 2.00116                         | .39066  | -.10717 | .00017  | -.00084 | -.01094 |
| .155    | 22.544   | .00000 | 35.58699   | 2.00963                         | .45229  | -.10073 | .00013  | -.00133 | -.00867 |
| .155    | 24.675   | .00000 | 35.60735   | 2.00613                         | .54352  | -.16597 | .00005  | -.00054 | -.00465 |
| .156    | 26.945   | .00000 | 35.72524   | 1.99220                         | .63811  | -.26593 | -.00047 | -.00216 | -.00233 |
|         | GRADIENT | .00000 | -.01148    | .10694                          | -.00167 | -.01691 | -.00009 | -.00011 | .00016  |



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(CA-8) K2V9.1.2TS5

F20TS401

(RJF097) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 TORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 97/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -1.993   | .00000 | 35.32331 | .03063  | .12603  | .25776  | .00093  | .00004  | -.01348 |
| .155 | .158     | .00000 | 35.31022 | .25541  | .11446  | .24462  | .00086  | .00103  | -.00624 |
| .155 | 2.344    | .00000 | 35.29193 | .47663  | .10552  | .23574  | .00038  | .00016  | .00011  |
| .155 | 4.365    | .00000 | 35.24742 | .67937  | .11270  | .23429  | .00047  | .00146  | .00211  |
| .154 | 6.302    | .00000 | 35.09182 | .85524  | .11605  | .23647  | -.00020 | -.00046 | .01164  |
| .154 | 8.358    | .00000 | 35.07900 | 1.05242 | .13308  | .24048  | .00036  | -.00035 | .01051  |
| .154 | 10.495   | .00000 | 35.02186 | 1.23409 | .15389  | .24122  | .00021  | -.00153 | .01689  |
| .154 | 12.336   | .00000 | 35.03892 | 1.40912 | .18074  | .23681  | .00085  | -.00051 | .01218  |
| .154 | 14.423   | .00000 | 35.09965 | 1.59237 | .21310  | .22365  | .00037  | -.00098 | .02317  |
| .154 | 16.654   | .00000 | 35.14666 | 1.74741 | .25164  | .22674  | -.00012 | -.00113 | .02439  |
| .155 | 18.511   | .00000 | 35.34916 | 1.85201 | .29671  | .23874  | .00004  | -.00017 | .02321  |
| .155 | 20.503   | .00000 | 35.50819 | 1.91877 | .34766  | .26030  | -.00014 | -.00027 | .02933  |
| .155 | 22.590   | .00000 | 35.24829 | 1.93569 | .41601  | .29300  | -.00009 | -.00079 | .03708  |
| .154 | 24.515   | .00000 | 34.96996 | 1.91783 | .48803  | .31153  | .00103  | -.00105 | .03330  |
| .154 | 26.732   | .00000 | 34.84987 | 1.96976 | .56479  | -.05833 | -.00017 | -.00303 | .03075  |
|      | GRADIENT | .00000 | -.01151  | .10196  | -.00233 | -.00375 | -.00009 | .00016  | .00251  |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K2V9.1.2TS5H15.6.1F20TS401

(RJF098) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 SREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = -23.000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

| RUN NO. |          | 98/ 0  | RN/L =   | .00     | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |
|---------|----------|--------|----------|---------|---------------------------------|---------|---------|---------|---------|
| MACH    | ALPHA    | BETA   | Q(PSF)   | CL      | CD                              | CLM     | CLN     | CSL     | CY      |
| .154    | -2.700   | .00000 | 35.01983 | -.18322 | .13697                          | .67454  | .00196  | -.00008 | -.01904 |
| .154    | .119     | .00000 | 35.01559 | .13711  | .11519                          | .62623  | .00179  | .00052  | -.01803 |
| .154    | 2.215    | .00000 | 35.12932 | .36542  | .11115                          | .59989  | .00177  | .00066  | -.01634 |
| .154    | 4.287    | .00000 | 35.09455 | .55519  | .11600                          | .58746  | .00117  | -.00042 | -.01395 |
| .154    | 6.340    | .00000 | 35.11662 | .75828  | .12529                          | .56711  | .00112  | .00022  | -.01279 |
| .154    | 8.479    | .00000 | 35.16538 | .97381  | .14412                          | .53398  | .00123  | -.00042 | -.01658 |
| .155    | 10.436   | .00000 | 35.19938 | 1.15502 | .16745                          | .49966  | .00121  | -.00102 | -.01441 |
| .155    | 12.500   | .00000 | 35.20756 | 1.34571 | .19809                          | .45620  | .00129  | -.00171 | -.01622 |
| .155    | 14.501   | .00000 | 35.24846 | 1.53173 | .23164                          | .41051  | .00117  | -.00105 | -.01405 |
| .155    | 16.399   | .00000 | 35.28797 | 1.67388 | .26731                          | .38521  | .00101  | -.00261 | -.01439 |
| .155    | 18.569   | .00000 | 35.40042 | 1.80328 | .31246                          | .35691  | .00095  | -.00126 | -.01365 |
| .155    | 20.588   | .00000 | 35.53297 | 1.88350 | .36470                          | .32714  | .00026  | -.00127 | -.01088 |
| .155    | 22.469   | .00000 | 35.60072 | 1.91372 | .42476                          | .30947  | .00046  | -.00118 | -.01153 |
| .155    | 24.605   | .00000 | 35.50780 | 1.91843 | .51851                          | .20216  | .00083  | -.00064 | -.01061 |
| .155    | 26.807   | .00000 | 35.46352 | 1.89946 | .60759                          | .09192  | .00001  | -.00357 | -.00785 |
|         | GRADIENT | .00000 | .01443   | .10631  | -.00308                         | -.01266 | -.00010 | -.00003 | .00072  |

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(CA-8) K2V9.1.2TS5H15.6.1F20TS401

(RJF099) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = 17.000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

| RUN NO. 99/ 0 |          | RN/L = .00 |          | GRADIENT INTERVAL = -5.00/ 5.00 |        |         |         |         |         |
|---------------|----------|------------|----------|---------------------------------|--------|---------|---------|---------|---------|
| MACH          | ALPHA    | BETA       | Q(PSF)   | CL                              | CD     | CLM     | CLN     | CSL     | CY      |
| .155          | -2.887   | .00000     | 35.36279 | .03695                          | .11180 | -.24346 | .00106  | .00065  | -.01042 |
| .155          | .167     | .00000     | 35.31531 | .38523                          | .10059 | -.31699 | .00091  | .00037  | -.01155 |
| .155          | 2.368    | .00000     | 35.34276 | .62677                          | .10444 | -.36670 | .00041  | -.00032 | -.00822 |
| .155          | 4.474    | .00000     | 35.32696 | .84530                          | .11768 | -.40420 | .00053  | -.00025 | -.00828 |
| .155          | 6.399    | .00000     | 35.31022 | 1.03841                         | .13588 | -.44448 | .00104  | -.00059 | -.01381 |
| .155          | 8.466    | .00000     | 35.29679 | 1.23230                         | .16253 | -.48231 | .00050  | -.00196 | -.01007 |
| .155          | 10.478   | .00000     | 35.36822 | 1.42497                         | .19407 | -.52494 | .00053  | -.00186 | -.00968 |
| .154          | 12.433   | .00000     | 35.09135 | 1.60048                         | .23104 | -.57123 | .00062  | -.00256 | -.00994 |
| .154          | 14.486   | .00000     | 35.10419 | 1.80416                         | .27438 | -.62890 | .00078  | -.00213 | -.00976 |
| .155          | 16.484   | .00000     | 35.34601 | 1.94188                         | .31895 | -.64642 | .00042  | -.00324 | -.01100 |
| .155          | 18.520   | .00000     | 35.57672 | 2.05044                         | .36805 | -.62179 | .00008  | -.00135 | -.01117 |
| .155          | 20.609   | .00000     | 35.52291 | 2.10740                         | .42503 | -.57471 | .00020  | -.00188 | -.01187 |
| .155          | 22.543   | .00000     | 35.40181 | 2.11410                         | .49481 | -.54687 | .00048  | -.00196 | -.00767 |
| .155          | 24.575   | .00000     | 35.35908 | 2.11121                         | .58140 | -.58189 | .00100  | -.00114 | -.00671 |
| .154          | 26.877   | .00000     | 35.12052 | 2.09744                         | .68487 | -.70121 | -.00032 | -.00269 | -.00253 |
|               | GRADIENT | .00000     | -.00367  | .11001                          | .00068 | -.02202 | -.00009 | -.00014 | .00038  |

REPRODUCIBILITY OF THE  
 ORIGINAL PAGE IS POOR

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3.1V9.1.2TS5H15.6.1F20TS402

(RJF100) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = 17.000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 100/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA    | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|---------|----------|---------|--------|---------|---------|---------|---------|
| .155 | -2.823   | .00000  | 35.23415 | .02331  | .12949 | -.15834 | .00147  | -.00057 | -.01002 |
| .155 | .232     | .00000  | 35.18262 | .37689  | .11632 | -.23589 | .00169  | -.00052 | -.01787 |
| .155 | 2.242    | .00000  | 35.18864 | .59443  | .11970 | -.28651 | .00110  | -.00075 | -.01587 |
| .155 | 4.340    | -.01000 | 35.32120 | .80839  | .13249 | -.32598 | .00150  | .00092  | -.01299 |
| .155 | 6.312    | -.01000 | 35.40385 | 1.00256 | .15070 | -.36315 | .00144  | -.00117 | -.01415 |
| .155 | 8.395    | .00000  | 35.28348 | 1.21164 | .17816 | -.40769 | .00135  | -.00155 | -.00928 |
| .155 | 10.504   | .00000  | 35.31950 | 1.39595 | .21369 | -.44599 | .00157  | -.00176 | -.01058 |
| .155 | 12.509   | .00000  | 35.29936 | 1.59443 | .25190 | -.49397 | .00161  | -.00261 | -.01350 |
| .155 | 14.458   | -.01000 | 35.32035 | 1.78041 | .29527 | -.54222 | .00155  | -.00304 | -.01441 |
| .155 | 16.461   | .00000  | 35.45922 | 1.92286 | .34167 | -.55812 | .00126  | -.00264 | -.01229 |
| .155 | 18.657   | .00000  | 35.44166 | 2.03549 | .39707 | -.53218 | .00055  | -.00128 | -.00992 |
| .155 | 20.663   | -.01000 | 35.56304 | 2.09538 | .45567 | -.48710 | .00059  | -.00148 | -.01148 |
| .155 | 22.604   | -.01000 | 35.57260 | 2.11821 | .52474 | -.46334 | .00074  | -.00082 | -.00797 |
| .155 | 24.442   | -.01000 | 35.51973 | 2.11889 | .60417 | -.48509 | .00126  | -.00086 | -.00734 |
| .156 | 26.704   | -.01000 | 35.74318 | 2.10791 | .70816 | -.56249 | .00068  | -.00475 | -.00588 |
|      | GRADIENT | -.00120 | .00981   | .10980  | .00028 | -.02367 | -.00002 | .00017  | -.00040 |

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(CA-8) K3.1V9.1.2TS5H15.6.1F20TS402

(RJF101) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = -23.000  
 IOR8 = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 101/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA    | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|---------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -2.749   | .00000  | 35.20035 | -.18653 | .14883  | .66208  | .00258  | .00083  | -.01336 |
| .155 | .207     | .00000  | 35.21082 | .13675  | .12647  | .61566  | .00266  | .00065  | -.01525 |
| .155 | 2.263    | .00000  | 35.18491 | .36908  | .12226  | .58501  | .00249  | -.00019 | -.01841 |
| .155 | 4.297    | .00000  | 35.18821 | .55687  | .12654  | .57018  | .00228  | -.00014 | -.01548 |
| .154 | 6.244    | .00000  | 35.15041 | .75721  | .13729  | .54447  | .00224  | -.00014 | -.01370 |
| .155 | 8.301    | .00000  | 35.24295 | .96280  | .15635  | .51492  | .00252  | -.00011 | -.01362 |
| .155 | 10.311   | .00000  | 35.22309 | 1.14604 | .18105  | .49141  | .00236  | -.00102 | -.01316 |
| .155 | 12.399   | .00000  | 35.29596 | 1.33029 | .21375  | .46477  | .00241  | -.00106 | -.01153 |
| .155 | 14.524   | .00000  | 35.28769 | 1.52836 | .25213  | .42760  | .00250  | -.00133 | -.01107 |
| .155 | 16.550   | .00000  | 35.23108 | 1.67535 | .29274  | .41115  | .00192  | -.00145 | -.00922 |
| .155 | 18.655   | -.01000 | 35.29251 | 1.78763 | .34080  | .39763  | .00136  | -.00124 | -.00827 |
| .155 | 20.563   | .00000  | 35.38367 | 1.87726 | .39121  | .37689  | .00166  | -.00180 | -.01294 |
| .155 | 22.487   | .00000  | 35.42480 | 1.92046 | .45314  | .36322  | .00065  | -.00065 | -.00720 |
| .155 | 24.509   | -.01000 | 35.42611 | 1.92641 | .53536  | .30115  | .00098  | -.00050 | -.00633 |
| .155 | 26.820   | .00000  | 35.35146 | 1.92527 | .63940  | .19276  | .00091  | -.00489 | -.00484 |
|      | GRADIENT | .00000  | -.00250  | .10763  | -.00328 | -.01335 | -.00004 | -.00016 | -.00044 |

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(CA-8) K3.1V9.1.2TS5H15.6.1F10TS402

(RJF102) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -23.000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 102/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA    | Q(PSF)   | CL      | CD      | CLM     | CLN    | CSL     | CY      |
|------|----------|---------|----------|---------|---------|---------|--------|---------|---------|
| .154 | -1.956   | .00000  | 35.12291 | -.29752 | .13188  | .62575  | .00196 | -.00064 | -.01452 |
| .154 | .039     | .00000  | 35.13963 | -.09213 | .11190  | .60836  | .00229 | -.00141 | -.01779 |
| .154 | 2.248    | .00000  | 35.09236 | .12443  | .10012  | .58175  | .00218 | -.00105 | -.01951 |
| .154 | 4.315    | .00000  | 35.11751 | .33317  | .03894  | .55202  | .00216 | -.00102 | -.01655 |
| .154 | 6.340    | .00000  | 35.16885 | .52339  | .10508  | .52719  | .00221 | -.00041 | -.01349 |
| .155 | 8.388    | .00000  | 35.21117 | .73970  | .11969  | .49764  | .00228 | .00015  | -.01480 |
| .155 | 10.280   | .00000  | 35.19577 | .91451  | .14142  | .47900  | .00203 | -.00058 | -.01290 |
| .155 | 12.390   | .00000  | 35.21028 | 1.11462 | .17120  | .45055  | .00229 | -.00102 | -.01506 |
| .155 | 14.469   | .00000  | 35.23896 | 1.30656 | .20633  | .40827  | .00191 | -.00175 | -.01226 |
| .154 | 16.452   | .00000  | 35.16388 | 1.47297 | .24571  | .36714  | .00147 | -.00252 | -.00934 |
| .155 | 18.408   | .00000  | 35.33734 | 1.61573 | .28861  | .33695  | .00095 | -.00209 | -.00814 |
| .155 | 20.434   | -.01000 | 35.36512 | 1.72059 | .34101  | .32166  | .00026 | -.00152 | -.00720 |
| .155 | 22.553   | -.01000 | 35.36864 | 1.79832 | .41326  | .28142  | .00128 | -.00151 | -.00941 |
| .155 | 24.457   | -.01000 | 35.30824 | 1.84937 | .49223  | .21356  | .00171 | -.00173 | -.00797 |
| .155 | 26.981   | -.01000 | 35.27733 | 1.87349 | .59541  | .10619  | .00198 | -.00092 | -.00705 |
|      | GRADIENT | .00000  | -.00312  | .10029  | -.00525 | -.01180 | .00002 | -.00004 | -.00037 |

(CA-8) K3V9.1.2TS5H15.6.1F10TS402

(RJF103) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2346.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -23.000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

| RUN NO. 103/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |        |         |         |
|----------------|----------|------------|---------------------------------|---------|---------|---------|--------|---------|---------|
| MACH           | ALPHAW   | BETA       | Q(PSF)                          | CL      | CD      | CLM     | CLN    | CSL     | CY      |
| .154           | -1.960   | .00000     | 35.11459                        | -.30040 | .13248  | .62603  | .00190 | -.00171 | -.01500 |
| .154           | .122     | .00000     | 35.13768                        | -.08829 | .11166  | .60824  | .00207 | -.00038 | -.01216 |
| .154           | 2.246    | .00000     | 35.09181                        | .12218  | .10044  | .58247  | .00182 | -.00168 | -.01672 |
| .154           | 4.243    | .00000     | 35.04259                        | .32786  | .09871  | .55274  | .00201 | -.00046 | -.01649 |
| .154           | 6.256    | .00000     | 35.04244                        | .53169  | .10442  | .52626  | .00207 | -.00047 | -.01256 |
| .154           | 8.399    | .00000     | 35.12929                        | .73595  | .11985  | .49647  | .00212 | -.00029 | -.01193 |
| .154           | 10.322   | .00000     | 35.14873                        | .92481  | .14039  | .47682  | .00212 | -.00022 | -.01268 |
| .154           | 12.347   | .00000     | 35.12784                        | 1.10313 | .17017  | .45321  | .00155 | -.00108 | -.01015 |
| .154           | 14.401   | .00000     | 35.07870                        | 1.30175 | .20421  | .40977  | .00166 | -.00176 | -.01143 |
| .154           | 16.574   | .00000     | 35.01119                        | 1.49456 | .24724  | .36122  | .00188 | -.00244 | -.01123 |
| .155           | 18.548   | .00000     | 35.19854                        | 1.62822 | .29141  | .33442  | .00067 | -.00183 | -.00484 |
| .155           | 20.466   | .00000     | 35.25661                        | 1.72267 | .34122  | .32133  | .00019 | -.00115 | -.00606 |
| .155           | 22.443   | -.01000    | 35.36262                        | 1.79602 | .40760  | .28565  | .00075 | -.00133 | -.00540 |
| .155           | 24.425   | .00000     | 35.24285                        | 1.84986 | .48987  | .21225  | .00108 | -.00173 | -.00393 |
| .155           | 26.995   | .00000     | 35.20071                        | 1.87923 | .59644  | .10430  | .00195 | -.00070 | -.00282 |
|                | GRADIENT | .00000     | -.01258                         | .10105  | -.00545 | -.01184 | .00000 | .00012  | -.00044 |

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(CA-8) K3V9.1.2TS5H15.6.1F10TS402

(RJF104) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = 17.000  
 TORB = 6.000 ELEVON = -5.000  
 BOFLAP = .000

RUN NO. 104/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHA  | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN    | CSL     | CY      |
|----------|--------|--------|----------|---------|---------|---------|--------|---------|---------|
| .154     | -2.937 | .00000 | 35.04441 | -.15320 | .12865  | -.23442 | .00127 | -.00091 | -.01340 |
| .154     | .106   | .00000 | 35.01987 | .15726  | .10601  | -.28910 | .00143 | -.00150 | -.01464 |
| .154     | 2.209  | .00000 | 34.99517 | .37728  | .10220  | -.33668 | .00155 | -.00017 | -.01487 |
| .154     | 4.379  | .00000 | 35.08181 | .59801  | .10871  | -.37981 | .00124 | -.00003 | -.01288 |
| .154     | 6.358  | .00000 | 35.09238 | .79643  | .12381  | -.42247 | .00127 | -.00047 | -.01137 |
| .154     | 8.377  | .00000 | 35.08799 | .98909  | .14612  | -.46715 | .00136 | -.00169 | -.01370 |
| .155     | 10.315 | .00000 | 35.21411 | 1.16690 | .17701  | -.50905 | .00139 | -.00165 | -.01141 |
| .155     | 12.578 | .00000 | 35.36492 | 1.37253 | .21817  | -.55718 | .00106 | -.00312 | -.01189 |
| .155     | 14.587 | .00000 | 35.37564 | 1.56389 | .26077  | -.59522 | .00111 | -.00177 | -.01046 |
| .155     | 16.654 | .00000 | 35.60033 | 1.73826 | .30780  | -.60462 | .00088 | -.00242 | -.00735 |
| .156     | 18.391 | .00000 | 35.74698 | 1.85719 | .35216  | -.60399 | .00058 | -.00260 | -.00769 |
| .155     | 20.483 | .00000 | 35.50490 | 1.96221 | .41414  | -.61627 | .00025 | -.00162 | -.00769 |
| .155     | 22.530 | .00000 | 35.46312 | 2.02489 | .49026  | -.61976 | .00053 | -.00212 | -.00625 |
| .155     | 24.536 | .00000 | 35.42061 | 2.05374 | .57312  | -.62678 | .00163 | -.00224 | -.00585 |
| .155     | 26.860 | .00000 | 35.30388 | 2.07495 | .67873  | -.71412 | .00317 | -.00154 | -.00717 |
| GRADIENT |        | .00000 | .00297   | .10283  | -.00286 | -.02004 | .00000 | .00015  | .00003  |



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(CA-8) K2V9.1.2T55F30G5.3.5T5401

(RJF105) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 TORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

| RUN NO. |          | 0/ 0   | RN/L =   | .00     | GRADIENT INTERVAL = -5.00/ 5.00 |         |         |         |         |
|---------|----------|--------|----------|---------|---------------------------------|---------|---------|---------|---------|
| MACH    | ALPHAW   | BETA   | Q(PSF)   | CL      | CD                              | CLM     | CLN     | CSL     | CY      |
| .155    | -2.947   | .00000 | 35.18517 | -.21534 | .12409                          | -.02813 | .00115  | -.00031 | -.01362 |
| .155    | 2.238    | .00000 | 35.20700 | .28487  | .09258                          | -.03443 | .00080  | -.00142 | -.01423 |
| .154    | 4.305    | .00000 | 35.12450 | .49730  | .09422                          | -.04124 | .00102  | .00031  | -.01415 |
| .154    | 6.212    | .00000 | 35.16327 | .67393  | .10402                          | -.03704 | .00074  | .00043  | -.01205 |
| .155    | 8.273    | .00000 | 35.20547 | .86296  | .12270                          | -.03676 | .00104  | -.00101 | -.01553 |
| .155    | 10.302   | .00000 | 35.23808 | 1.05500 | .14799                          | -.03219 | .00132  | -.00120 | -.01635 |
| .155    | 12.311   | .00000 | 35.22768 | 1.23135 | .17741                          | -.02803 | .00147  | -.00043 | -.01340 |
| .155    | 14.314   | .00000 | 35.17902 | 1.40189 | .21353                          | -.03404 | .00117  | -.00209 | -.01143 |
| .155    | 16.425   | .00000 | 35.28237 | 1.57876 | .25554                          | -.04234 | .00103  | -.00279 | -.01182 |
| .155    | 18.442   | .00000 | 35.38187 | 1.72613 | .30059                          | -.03928 | .00127  | -.00124 | -.01259 |
| .155    | 20.552   | .00000 | 35.50036 | 1.81767 | .35857                          | -.02266 | .00100  | -.00119 | -.01028 |
| .155    | 22.551   | .00000 | 35.35332 | 1.87459 | .42668                          | -.00316 | .00158  | -.00113 | -.00938 |
| .155    | 24.507   | .00000 | 35.24693 | 1.89606 | .50202                          | .01117  | .00180  | -.00123 | -.00757 |
| .155    | 26.885   | .00000 | 35.19850 | 1.89303 | .58990                          | .04656  | .00262  | -.00041 | -.00510 |
|         | GRADIENT | .00000 | -.00594  | .09792  | -.00450                         | -.00169 | -.00003 | .00003  | -.00008 |

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 ORIGINAL PAGE IS POOR

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F10TS402

(RJF106) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 TORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 106/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -2.819   | .00000 | 35.22616 | -.26643 | .13087  | .19468  | .00194  | -.00102 | -.01735 |
| .155 | .215     | .00000 | 35.25398 | .04682  | .10295  | .14741  | .00196  | -.00120 | -.01871 |
| .155 | 2.365    | .00000 | 35.22898 | .25186  | .09628  | .11085  | .00140  | -.00121 | -.01805 |
| .155 | 4.142    | .00000 | 35.19965 | .43743  | .09771  | .07023  | .00152  | -.00022 | -.01620 |
| .155 | 6.196    | .00000 | 35.22826 | .65182  | .10810  | .04103  | .00178  | -.00148 | -.01694 |
| .155 | 8.438    | .00000 | 35.22188 | .86661  | .12875  | -.00444 | .00120  | -.00139 | -.01340 |
| .155 | 10.409   | .00000 | 35.17536 | 1.05888 | .15513  | -.04690 | .00156  | -.00146 | -.01424 |
| .155 | 12.414   | .00000 | 35.19858 | 1.23882 | .18883  | -.08545 | .00122  | -.00236 | -.01403 |
| .155 | 14.354   | .00000 | 35.22165 | 1.43952 | .22529  | -.14278 | .00134  | -.00118 | -.01268 |
| .155 | 16.403   | .00000 | 35.20795 | 1.61050 | .26932  | -.18060 | .00099  | -.00237 | -.01125 |
| .155 | 18.534   | .00000 | 35.46579 | 1.76424 | .32043  | -.19167 | .00039  | -.00314 | -.01057 |
| .155 | 20.503   | .00000 | 35.50714 | 1.85569 | .37733  | -.20435 | .00024  | -.00232 | -.01016 |
| .155 | 22.467   | .00000 | 35.53225 | 1.92618 | .44785  | -.23142 | .00128  | -.00213 | -.01105 |
| .155 | 24.528   | .00000 | 35.40614 | 1.96660 | .53552  | -.27323 | .00111  | -.00173 | -.00739 |
| .155 | 26.907   | .00000 | 35.58321 | 1.99050 | .63851  | -.35912 | .00263  | -.00198 | -.00879 |
|      | GRADIENT | .00000 | -.00376  | .10063  | -.00489 | -.01691 | -.00008 | .00009  | .00014  |

(CA-8) K3V9.1.2TS5H15.6.1F10TS402

(RJF107) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 TORB = 6.000 ELEVON = -5.000  
 BOFLAP = .000

RUN NO. 107/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHA  | BETA   | Q (PSF)  | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|----------|--------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155     | -2.824 | .00000 | 35.26600 | -.23299 | .12822  | .10251  | .00146  | -.00066 | -.01492 |
| .155     | .326   | .00000 | 35.32023 | .06829  | .10203  | .05233  | .00136  | -.00070 | -.01514 |
| .155     | 2.369  | .00000 | 35.20688 | .28234  | .09665  | .01267  | .00119  | -.00069 | -.01553 |
| .155     | 4.318  | .00000 | 35.17059 | .48356  | .09990  | -.02161 | .00129  | -.00023 | -.01578 |
| .154     | 6.335  | .00000 | 35.16607 | .69315  | .1070   | -.06136 | .00169  | -.00135 | -.01653 |
| .154     | 8.485  | .00000 | 35.06433 | .89947  | .13250  | -.10840 | .00138  | -.00098 | -.01301 |
| .154     | 10.276 | .00000 | 35.11101 | 1.08671 | .15705  | -.14810 | .00130  | -.00066 | -.01488 |
| .154     | 12.331 | .00000 | 35.04055 | 1.25905 | .19210  | -.18389 | .00098  | -.00239 | -.01305 |
| .154     | 14.361 | .00000 | 35.05420 | 1.45460 | .23110  | -.23866 | .00104  | -.00292 | -.01445 |
| .154     | 16.501 | .00000 | 35.11916 | 1.65102 | .27834  | -.27213 | .00078  | -.00296 | -.01225 |
| .155     | 18.520 | .00000 | 35.39640 | 1.78343 | .32751  | -.28524 | .00045  | -.00283 | -.01143 |
| .155     | 20.555 | .00000 | 35.46509 | 1.88446 | .38757  | -.30236 | .00051  | -.00190 | -.01083 |
| .155     | 22.581 | .00000 | 35.46366 | 1.95121 | .46362  | -.32570 | .00090  | -.00186 | -.00975 |
| .155     | 24.487 | .00000 | 35.45339 | 1.98697 | .54382  | -.35647 | .00104  | -.00177 | -.00522 |
| .155     | 26.894 | .00000 | 35.39314 | 2.00884 | .64838  | -.43355 | .00247  | -.00118 | -.00647 |
| GRADIENT |        | .00000 | -.01536  | .10044  | -.00413 | -.01748 | -.00003 | .00005  | -.00012 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F10TS402

(RJF108) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = 2.000 ELEVTR = .000  
 TORB = 6.000 ELEVON = -5.000  
 BOFLAP = .000

RUN NO. 108/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -2.881   | .00000 | 35.31316 | -.22268 | .12682  | .00497  | .00132  | -.00162 | -.01738 |
| .154 | .168     | .00000 | 35.05833 | .09143  | .10159  | -.04392 | .00114  | -.00124 | -.01723 |
| .155 | 2.222    | .00000 | 35.30244 | .30236  | .09590  | -.08625 | .00098  | -.00064 | -.01465 |
| .155 | 4.268    | .00000 | 35.21971 | .50234  | .10051  | -.12517 | .00084  | .00027  | -.01351 |
| .154 | 6.105    | .00000 | 35.09347 | .69516  | .11418  | -.16233 | .00101  | -.00062 | -.01542 |
| .155 | 8.333    | .00000 | 35.17221 | .71346  | .11426  | -.16356 | .00116  | -.00104 | -.01629 |
| .155 | 8.344    | .00000 | 35.19866 | .91718  | .13527  | -.21000 | .00122  | -.00120 | -.01344 |
| .154 | 10.353   | .00000 | 35.07050 | 1.09821 | .16475  | -.25001 | .00098  | -.00251 | -.01343 |
| .154 | 12.357   | .00000 | 35.10379 | 1.29533 | .19882  | -.29271 | .00107  | -.00244 | -.01374 |
| .154 | 14.409   | .00000 | 35.09177 | 1.48302 | .24025  | -.33354 | .00099  | -.00219 | -.01308 |
| .155 | 16.413   | .00000 | 35.42481 | 1.64406 | .28461  | -.35996 | .00068  | -.00335 | -.01201 |
| .155 | 18.465   | .00000 | 35.33529 | 1.79863 | .33503  | -.37658 | .00062  | -.00235 | -.00930 |
| .155 | 20.542   | .00000 | 35.46614 | 1.89561 | .39642  | -.39513 | .00024  | -.00167 | -.00973 |
| .155 | 22.495   | .00000 | 35.38018 | 1.95425 | .46880  | -.41389 | .00087  | -.00179 | -.00973 |
| .156 | 24.526   | .00000 | 35.89056 | 1.99833 | .55454  | -.43675 | .00070  | -.00108 | -.00364 |
| .156 | 26.862   | .00000 | 35.77663 | 2.01750 | .65599  | -.52009 | .00273  | -.00182 | -.00851 |
|      | GRADIENT | .00000 | -.00453  | .10162  | -.00385 | -.01831 | -.00007 | .00026  | .00058  |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F10TS40265.3.5

(RJF109) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 TORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 109/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN    | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|--------|---------|---------|
| .155 | -2.923   | .00000 | 35.26063 | -.21960 | .15734  | .10276  | .00098 | -.00054 | -.01185 |
| .155 | .167     | .00000 | 35.19385 | .07683  | .12880  | .05258  | .00175 | -.00104 | -.01796 |
| .155 | 2.179    | .00000 | 35.32995 | .27513  | .12166  | .01103  | .00130 | -.00072 | -.01698 |
| .154 | 4.198    | .00000 | 35.03881 | .47585  | .12397  | -.02912 | .00127 | -.00026 | -.01573 |
| .154 | 6.284    | .00000 | 35.08101 | .68284  | .13352  | -.06852 | .00125 | -.00068 | -.01030 |
| .154 | 8.310    | .00000 | 35.04821 | .88717  | .15310  | -.11627 | .00132 | -.00090 | -.01218 |
| .154 | 10.361   | .00000 | 35.08240 | 1.07021 | .18189  | -.15612 | .00094 | -.00166 | -.01128 |
| .154 | 12.374   | .00000 | 35.02242 | 1.25760 | .21277  | -.19814 | .00137 | -.00255 | -.01560 |
| .154 | 14.461   | .00000 | 35.06612 | 1.44076 | .25222  | -.25190 | .00120 | -.00208 | -.01242 |
| .155 | 16.460   | .00000 | 35.28097 | 1.62091 | .29418  | -.28821 | .00102 | -.00291 | -.01119 |
| .155 | 18.518   | .00000 | 35.44402 | 1.76637 | .34200  | -.30305 | .00072 | -.00107 | -.00705 |
| .156 | 20.504   | .00000 | 35.67440 | 1.86316 | .39988  | -.31682 | .00041 | -.00157 | -.00744 |
| .155 | 22.536   | .00000 | 35.52560 | 1.92504 | .47486  | -.32542 | .00070 | -.00201 | -.00814 |
| .155 | 24.507   | .00000 | 35.59760 | 1.96258 | .55476  | -.34333 | .00087 | -.00143 | -.00696 |
| .156 | 26.901   | .00000 | 35.61151 | 1.97962 | .65394  | -.40588 | .00235 | -.00100 | -.00786 |
|      | GRADIENT | .00000 | -.02143  | .09764  | -.00485 | -.01858 | .00003 | .00004  | -.00053 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F10TS402SS

(RJF110) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 110/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q (PSF)  | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -2.804   | .00000 | 35.21528 | -.23585 | .12763  | .10068  | .00131  | -.00225 | -.01164 |
| .155 | .122     | .00000 | 35.34766 | .05645  | .10315  | .05599  | .00157  | -.00154 | -.01665 |
| .154 | 2.207    | .00000 | 35.14995 | .27393  | .09649  | .01380  | .00173  | .00001  | -.01771 |
| .154 | 4.279    | .00000 | 35.07579 | .47872  | .10095  | -.01666 | .00116  | -.00072 | -.01371 |
| .155 | 6.337    | .00000 | 35.21173 | .69212  | .11266  | -.05393 | .00140  | -.00105 | -.01333 |
| .154 | 8.341    | .00000 | 35.05913 | .88965  | .13285  | -.09552 | .00162  | -.00095 | -.01411 |
| .154 | 10.374   | .00000 | 35.00980 | 1.07855 | .16157  | -.13798 | .00194  | -.00130 | -.01402 |
| .154 | 12.355   | .00000 | 35.14095 | 1.27119 | .19463  | -.18061 | .00206  | -.00018 | -.01319 |
| .155 | 14.391   | .00000 | 35.30121 | 1.45829 | .23572  | -.23117 | .00123  | -.00241 | -.01284 |
| .155 | 16.502   | .00000 | 35.32797 | 1.64735 | .28283  | -.27290 | .00173  | -.00210 | -.01431 |
| .155 | 18.533   | .00000 | 35.36859 | 1.77883 | .33211  | -.28531 | .00099  | -.00222 | -.00827 |
| .155 | 20.496   | .00000 | 35.41063 | 1.88084 | .38819  | -.30088 | .00069  | -.00163 | -.00832 |
| .155 | 22.508   | .00000 | 35.42341 | 1.94697 | .46324  | -.31943 | .00125  | -.00186 | -.00880 |
| .156 | 24.499   | .00000 | 35.79934 | 1.98526 | .54574  | -.33676 | .00108  | -.00184 | -.00510 |
| .156 | 26.877   | .00000 | 35.83813 | 2.00922 | .64924  | -.40026 | .00225  | -.00146 | -.00740 |
|      | GRADIENT | .00000 | -.02391  | .10117  | -.00392 | -.01686 | -.00001 | .00027  | -.00038 |

(CA-8) K3V9.1.2TS5H15.6.1F10TS402

(RJF111) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 IORB = 8.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 111/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHA  | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN    | CSL     | CY      |
|----------|--------|--------|----------|---------|---------|---------|--------|---------|---------|
| .155     | -2.829 | .00000 | 35.31532 | -.21992 | .12752  | .13412  | .00179 | -.00147 | -.01315 |
| .155     | .107   | .00000 | 35.27545 | .07164  | .10323  | .08930  | .00214 | .00021  | -.01236 |
| .154     | 2.170  | .00000 | 35.14491 | .27997  | .09738  | .05210  | .00232 | -.00116 | -.01601 |
| .154     | 4.254  | .00000 | 35.11943 | .49123  | .10217  | .01680  | .00262 | -.00062 | -.01591 |
| .154     | 6.241  | .00000 | 35.12946 | .69094  | .11506  | -.01304 | .00329 | -.00113 | -.01423 |
| .154     | 8.360  | .00000 | 35.15286 | .89757  | .13799  | -.05218 | .00340 | -.00122 | -.01540 |
| .154     | 10.425 | .00000 | 35.14061 | 1.09501 | .16959  | -.08923 | .00314 | -.00146 | -.01367 |
| .154     | 12.368 | .00000 | 35.09976 | 1.26953 | .20381  | -.11972 | .00269 | -.00260 | -.01440 |
| .154     | 14.387 | .00000 | 35.11692 | 1.47152 | .24542  | -.17540 | .00204 | -.00284 | -.01320 |
| .155     | 16.468 | .00000 | 35.25867 | 1.64293 | .29343  | -.21389 | .00165 | -.00261 | -.01365 |
| .155     | 18.458 | .00000 | 35.38939 | 1.78977 | .34538  | -.23532 | .00101 | -.00228 | -.01119 |
| .155     | 20.474 | .00000 | 35.36919 | 1.89095 | .40623  | -.25650 | .00123 | -.00185 | -.01235 |
| .155     | 22.511 | .00000 | 35.52336 | 1.96314 | .48297  | -.27539 | .00177 | -.00219 | -.01067 |
| .155     | 24.518 | .00000 | 35.50322 | 2.00218 | .56315  | -.29301 | .00195 | -.00204 | -.00959 |
| .156     | 26.875 | .00000 | 35.98653 | 2.02099 | .66354  | -.35667 | .00325 | -.00178 | -.01122 |
| GRADIENT |        | .00000 | -.03035  | .10041  | -.00372 | -.01664 | .00011 | .00007  | -.00049 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5H15.6.1F10TS402

(RJF112) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 8.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 112/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN    | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|--------|---------|---------|
| .154 | -2.797   | .00000 | 34.95257 | -.23872 | .12765  | .21604  | .00210 | .00127  | -.00689 |
| .155 | .192     | .00000 | 35.18020 | .06537  | .10189  | .17361  | .00256 | -.00148 | -.01627 |
| .154 | 2.163    | .00000 | 35.14741 | .27079  | .09573  | .13538  | .00278 | -.00080 | -.02004 |
| .155 | 4.228    | .00000 | 35.22827 | .47093  | .09991  | .10100  | .00264 | -.00031 | -.01487 |
| .154 | 6.318    | .00000 | 34.98471 | .68132  | .11283  | .06989  | .00340 | -.00125 | -.01438 |
| .154 | 8.357    | .00000 | 35.02419 | .87245  | .13411  | .03627  | .00340 | -.00083 | -.01342 |
| .154 | 10.410   | .00000 | 35.05589 | 1.07762 | .16401  | .00120  | .00343 | -.00131 | -.01480 |
| .154 | 12.462   | .00000 | 34.96861 | 1.25802 | .19978  | -.03087 | .00255 | -.00177 | -.01213 |
| .154 | 14.456   | .00000 | 35.10292 | 1.44537 | .24013  | -.06251 | .00233 | -.00243 | -.01418 |
| .155 | 16.421   | .00000 | 35.21136 | 1.62272 | .28509  | -.12600 | .00177 | -.00249 | -.01274 |
| .155 | 18.460   | .00000 | 35.48000 | 1.77034 | .33627  | -.14490 | .00147 | -.00171 | -.01408 |
| .155 | 20.478   | .00000 | 35.51077 | 1.87112 | .39736  | -.16398 | .00139 | -.00184 | -.01131 |
| .155 | 22.490   | .00000 | 35.56715 | 1.94086 | .47046  | -.18449 | .00149 | -.00126 | -.00740 |
| .156 | 24.556   | .00000 | 35.67719 | 1.98633 | .55396  | -.20903 | .00255 | -.00271 | -.01281 |
| .156 | 26.897   | .00000 | 35.77701 | 2.00432 | .65423  | -.27984 | .00327 | -.00197 | -.01049 |
|      | GRADIENT | .00000 | .03615   | .10134  | -.00412 | -.01653 | .00008 | -.00021 | -.00131 |



(CA-8) K3V9.1.2TS5H15.6.1F10TS402

(RJF113) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = 2.000 ELEVTR = .000  
 IORB = 8.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 113/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN    | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|--------|---------|---------|
| .154 | -2.817   | .00000 | 35.09250 | -.19340 | .12664  | .04952  | .00214 | -.00145 | -.01288 |
| .155 | .184     | .00000 | 35.30440 | .10524  | .10251  | .00035  | .00217 | -.00147 | -.01694 |
| .155 | 2.203    | .00000 | 35.28362 | .31008  | .09874  | -.03577 | .00226 | -.00129 | -.01575 |
| .154 | 4.292    | .00000 | 35.06254 | .51878  | .10411  | -.07138 | .00221 | -.00053 | -.01155 |
| .154 | 6.344    | .00000 | 35.13144 | .72814  | .11897  | -.10449 | .00323 | -.00114 | -.01388 |
| .155 | 8.340    | .00000 | 35.20376 | .92405  | .14183  | -.14509 | .00304 | -.00142 | -.01325 |
| .154 | 10.314   | .00000 | 35.15137 | 1.10971 | .17270  | -.17977 | .00294 | -.00166 | -.01270 |
| .155 | 12.408   | .00000 | 35.28317 | 1.30807 | .21066  | -.22298 | .00285 | -.00131 | -.01553 |
| .155 | 14.467   | .00000 | 35.27329 | 1.50142 | .25400  | -.26786 | .00249 | -.00234 | -.01675 |
| .155 | 16.451   | .00000 | 35.39151 | 1.66684 | .30186  | -.30186 | .00184 | -.00190 | -.01416 |
| .155 | 18.450   | .00000 | 35.40694 | 1.81366 | .35391  | -.32947 | .00101 | -.00289 | -.01437 |
| .155 | 20.506   | .00000 | 35.45996 | 1.91747 | .41849  | -.34924 | .00103 | -.00257 | -.01341 |
| .155 | 22.510   | .00000 | 35.50458 | 1.98117 | .49275  | -.36114 | .00216 | -.00225 | -.01368 |
| .156 | 24.502   | .00000 | 35.66139 | 2.02173 | .57431  | -.37503 | .00235 | -.00263 | -.01059 |
| .156 | 26.853   | .00000 | 35.90674 | 2.03887 | .67581  | -.43626 | .00329 | -.00198 | -.01126 |
|      | GRADIENT | .00000 | -.00104  | .10026  | -.00329 | -.01706 | .00001 | .00012  | .00015  |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS5

F10TS402

(RJF114) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 TORB = 8.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 114/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q (PSF)  | CL      | CD      | CLM     | CLN    | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|--------|---------|---------|
| .155 | -2.899   | .00000 | 35.27108 | -.17364 | .12301  | -.04528 | .00148 | -.00042 | -.00914 |
| .155 | .200     | .00000 | 35.26986 | .12952  | .09929  | -.04431 | .00188 | -.00038 | -.01425 |
| .155 | 2.182    | .00000 | 35.19013 | .32439  | .09490  | -.04896 | .00197 | .00009  | -.01412 |
| .155 | 4.240    | .00000 | 35.18762 | .52764  | .09956  | -.05088 | .00183 | -.00046 | -.01212 |
| .155 | 6.263    | .00000 | 35.14150 | .71310  | .11250  | -.04738 | .00264 | -.00008 | -.01587 |
| .154 | 8.305    | .00000 | 35.12704 | .90158  | .13206  | -.04403 | .00283 | -.00040 | -.01481 |
| .155 | 10.304   | .00000 | 35.13136 | 1.07305 | .16101  | -.03553 | .00258 | -.00125 | -.01312 |
| .155 | 12.360   | .00000 | 35.13168 | 1.24677 | .19487  | -.03153 | .00245 | -.00244 | -.01692 |
| .155 | 14.397   | .00000 | 35.23666 | 1.43755 | .23348  | -.03711 | .00247 | -.00180 | -.01638 |
| .155 | 16.424   | .00000 | 35.37162 | 1.60478 | .27741  | -.04251 | .00237 | -.00203 | -.01602 |
| .155 | 18.464   | .00000 | 35.49883 | 1.74829 | .32671  | -.03430 | .00231 | -.00166 | -.01762 |
| .155 | 20.512   | .00000 | 35.48530 | 1.84111 | .38480  | -.01879 | .00234 | -.00134 | -.01522 |
| .155 | 22.487   | .00000 | 35.39501 | 1.90221 | .45354  | .00652  | .00287 | -.00102 | -.01514 |
| .156 | 24.587   | .00000 | 35.67258 | 1.92891 | .53078  | .03611  | .00313 | -.00144 | -.01252 |
| .156 | 26.873   | .00000 | 35.95899 | 1.91942 | .61336  | .07368  | .00395 | -.00071 | -.01267 |
|      | GRADIENT | .00000 | -.01359  | .09822  | -.00344 | -.00086 | .00005 | .00002  | -.00045 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K2V9.1.2TS5F3065.3.5TS401,

(RJF115) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 TORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 115/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -2.922   | .00000 | 35.10768 | -.19197 | .10904  | -.07712 | .00092  | -.00091 | -.01173 |
| .154 | .164     | .00000 | 35.09215 | .08871  | .08519  | -.07674 | .00059  | -.00001 | -.01155 |
| .155 | 2.176    | .00000 | 35.14822 | .29183  | .07903  | -.08013 | .00046  | -.00032 | -.01173 |
| .155 | 4.215    | .00000 | 35.31275 | .49243  | .08119  | -.07932 | .00053  | .00134  | -.01168 |
| .155 | 6.306    | .00000 | 35.12882 | .69129  | .09139  | -.07539 | .00067  | .00039  | -.01294 |
| .155 | 8.311    | .00000 | 35.23125 | .87846  | .10819  | -.07631 | .00124  | .00068  | -.01407 |
| .155 | 10.317   | .00000 | 35.25316 | 1.06959 | .13262  | -.07275 | .00135  | .00040  | -.01138 |
| .155 | 12.365   | .00000 | 35.20767 | 1.23250 | .16297  | -.07294 | .00093  | -.00193 | -.01102 |
| .155 | 14.403   | .00000 | 35.23126 | 1.42100 | .19776  | -.08271 | .00141  | -.00114 | -.01508 |
| .155 | 16.429   | .00000 | 35.21023 | 1.59271 | .23521  | -.08832 | .00115  | -.00075 | -.01211 |
| .155 | 18.503   | .00000 | 35.51307 | 1.72381 | .28053  | -.08540 | .00106  | -.00181 | -.01176 |
| .155 | 20.496   | .00000 | 35.21026 | 1.81785 | .33104  | -.07066 | .00140  | -.00110 | -.01356 |
| .155 | 22.456   | .00000 | 35.53061 | 1.86500 | .40016  | -.05226 | .00176  | -.00230 | -.00766 |
| .155 | 24.539   | .00000 | 35.25659 | 1.89336 | .47899  | -.03966 | .00165  | -.00130 | -.01016 |
| .156 | 26.834   | .00000 | 35.92208 | 1.89834 | .56207  | -.00412 | .00232  | -.00056 | -.00909 |
|      | GRADIENT | .00000 | .02669   | .09607  | -.00405 | -.00041 | -.00006 | .00027  | .00000  |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K2V9.1.2T55H15.6.1F10TS401

(RJF116) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = 3.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 116/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | .161     | .00000 | 35.49748 | .12446  | .08574 | -.16495 | .00075  | -.00060 | -.01482 |
| .155 | 2.223    | .00000 | 35.44845 | .33972  | .08122 | -.20911 | .00076  | -.00074 | -.01638 |
| .155 | 4.242    | .00000 | 35.14855 | .52863  | .08718 | -.24431 | .00025  | -.00113 | -.01144 |
| .155 | 6.330    | .00000 | 35.13087 | .74796  | .10094 | -.28597 | .00069  | -.00055 | -.01277 |
| .155 | 8.337    | .00000 | 35.14725 | .94950  | .12165 | -.33516 | .00121  | -.00105 | -.01574 |
| .155 | 10.415   | .00000 | 35.15060 | 1.15334 | .15135 | -.38025 | .00100  | -.00143 | -.01662 |
| .155 | 12.379   | .00000 | 35.19168 | 1.32862 | .18675 | -.41865 | .00076  | -.00155 | -.01722 |
| .155 | 14.442   | .00000 | 35.15855 | 1.51485 | .22658 | -.46508 | .00081  | -.00129 | -.01822 |
| .155 | 16.487   | .00000 | 35.24551 | 1.70159 | .26889 | -.49150 | .00043  | -.00258 | -.01635 |
| .155 | 18.484   | .00000 | 35.32405 | 1.82563 | .31636 | -.49917 | -.00033 | -.00120 | -.00874 |
| .155 | 20.485   | .00000 | 35.35546 | 1.92905 | .37229 | -.51852 | .00014  | -.00150 | -.01216 |
| .155 | 22.474   | .00000 | 35.34390 | 1.98157 | .44867 | -.53943 | .00084  | -.00246 | -.00891 |
| .156 | 24.595   | .00000 | 35.87750 | 2.01748 | .53783 | -.57207 | .00175  | -.00249 | -.01263 |
| .156 | 26.803   | .00000 | 35.90328 | 2.03861 | .63556 | -.64216 | .00244  | -.00240 | -.01463 |
|      | GRADIENT | .00000 | -.08528  | .09906  | .00034 | -.01945 | -.00012 | -.00013 | .00082  |

(CA-8) K2V9.1.2TS5H15.6.1F.10TS401

(RJF117) ( 18 JUN 76 )

## REFERENCE DATA

SREF = .5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 11.090  
 STAB = .000 ELEVTR = .000  
 TORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 117/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -2.814   | .00000 | 35.20676 | -.23086 | .11140  | .04653  | .00091  | -.00121 | -.01737 |
| .155 | .173     | .00000 | 35.21382 | .06417  | .08590  | -.00296 | .00114  | -.00066 | -.01437 |
| .155 | 2.204    | .00000 | 35.12202 | .28597  | .07942  | -.04349 | .00108  | -.00088 | -.01599 |
| .155 | 4.206    | .00000 | 35.15056 | .48826  | .08261  | -.08228 | .00101  | -.00017 | -.01541 |
| .155 | 6.253    | .00000 | 35.12293 | .69045  | .09354  | -.12180 | .00090  | -.00097 | -.01446 |
| .155 | 8.268    | .00000 | 35.17137 | .89452  | .11311  | -.17035 | .00091  | -.00011 | -.00648 |
| .155 | 10.358   | .00000 | 35.17727 | 1.09908 | .13945  | -.21631 | .00097  | -.00104 | -.01481 |
| .155 | 12.436   | .00000 | 35.19092 | 1.30329 | .17308  | -.26574 | .00103  | -.00196 | -.01647 |
| .155 | 14.435   | .00000 | 35.09673 | 1.48765 | .21392  | -.32149 | .00089  | -.00214 | -.01879 |
| .155 | 16.484   | .00000 | 35.12386 | 1.65686 | .25514  | -.35931 | .00049  | -.00235 | -.01664 |
| .155 | 18.478   | .00000 | 35.34756 | 1.79299 | .29998  | -.36520 | .00023  | -.00160 | -.01326 |
| .155 | 20.510   | .00000 | 35.43172 | 1.89549 | .35678  | -.38051 | -.00045 | -.00139 | -.00922 |
| .155 | 22.484   | .00000 | 35.35120 | 1.94958 | .43191  | -.40431 | .00042  | -.00198 | -.00790 |
| .156 | 24.508   | .00000 | 35.77875 | 1.99042 | .51609  | -.43986 | .00083  | -.00177 | -.01170 |
| .156 | 26.823   | .00000 | 35.93466 | 2.01063 | .61578  | -.52070 | .00196  | -.00174 | -.01250 |
|      | GRADIENT | .00000 | -.01098  | .10288  | -.00426 | -.01840 | .00001  | .00013  | .00022  |

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(CA-8) K2V9.1.2TS5H15.6.1F10TS401

(RJF118) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 TORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 118/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHA  | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|----------|--------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155     | -2.799 | .00000 | 35.08389 | -.28514 | .11316  | .22950  | .00154  | -.00098 | -.01873 |
| .155     | .130   | .00000 | 35.15441 | .02120  | .08529  | .19324  | .00155  | -.00106 | -.01704 |
| .155     | 2.157  | .00000 | 35.18600 | .22251  | .07776  | .15596  | .00157  | -.00023 | -.01824 |
| .155     | 4.271  | .00000 | 35.19491 | .43798  | .07893  | .11942  | .00128  | .00007  | -.01464 |
| .155     | 6.310  | .00000 | 35.07518 | .64190  | .08796  | .08104  | .00137  | -.00051 | -.01565 |
| .154     | 8.278  | .00000 | 34.98242 | .83684  | .10471  | .03620  | .00130  | -.00050 | -.01339 |
| .154     | 10.315 | .00000 | 35.01882 | 1.03798 | .12869  | -.00685 | .00183  | -.00088 | -.01939 |
| .155     | 12.352 | .00000 | 35.11025 | 1.22283 | .16051  | -.04758 | .00142  | -.00229 | -.01723 |
| .155     | 14.395 | .00000 | 35.26391 | 1.42744 | .19719  | -.11179 | .00113  | -.00244 | -.01713 |
| .155     | 16.408 | .00000 | 35.11892 | 1.60490 | .23846  | -.16421 | .00069  | -.00275 | -.01510 |
| .155     | 18.467 | .00000 | 35.33612 | 1.74548 | .28411  | -.18542 | .00067  | -.00210 | -.01572 |
| .155     | 20.474 | .00000 | 35.40439 | 1.84771 | .33723  | -.19314 | .00005  | -.00160 | -.01063 |
| .155     | 22.511 | .00000 | 35.37558 | 1.90064 | .40941  | -.21994 | .00074  | -.00216 | -.00822 |
| .156     | 24.549 | .00000 | 35.67267 | 1.94699 | .49539  | -.26505 | .00090  | -.00195 | -.01002 |
| .156     | 26.840 | .00000 | 35.83598 | 1.96593 | .59130  | -.34786 | .00182  | -.00170 | -.01281 |
| GRADIENT |        | .00000 | .01606   | .10207  | -.00494 | -.01568 | -.00003 | .00016  | .00047  |

(CA-8) K2V9.1.2TS5H15.6.1F10TS401

(RJF119) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 TORB = 3.000 ELEVON = .000  
 BDCLAP = -11.700

RUN NO. 119/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -2.799   | .00000 | 35.20655 | -.25343 | .11093  | .13663  | .00123  | -.00232 | -.01907 |
| .154 | .160     | .00000 | 35.05895 | .03835  | .08492  | .09534  | .00134  | -.00146 | -.01918 |
| .155 | 2.212    | .00000 | 35.17864 | .25841  | .07753  | .05643  | .00123  | .00004  | -.01682 |
| .155 | 4.257    | .00000 | 35.15996 | .46250  | .08097  | .01789  | .00105  | -.00054 | -.01682 |
| .154 | 6.305    | .00000 | 35.05556 | .67445  | .09065  | -.02310 | .00148  | .00095  | -.01580 |
| .155 | 8.325    | .00000 | 35.09392 | .87159  | .10774  | -.06875 | .00161  | .00050  | -.01569 |
| .155 | 10.370   | .00000 | 35.10015 | 1.06759 | .13698  | -.11115 | .00127  | -.00199 | -.01856 |
| .154 | 12.357   | .00000 | 35.04092 | 1.26263 | .16569  | -.15813 | .00125  | -.00222 | -.01595 |
| .155 | 14.424   | .00000 | 35.19401 | 1.45869 | .20507  | -.22087 | .00069  | -.00208 | -.01477 |
| .155 | 16.441   | .00000 | 35.21940 | 1.64295 | .24751  | -.26780 | .00060  | -.00219 | -.01454 |
| .155 | 18.563   | .00000 | 35.36428 | 1.78070 | .29368  | -.27684 | .00028  | -.00128 | -.01205 |
| .155 | 20.498   | .00000 | 35.35961 | 1.87148 | .34874  | -.28766 | -.00008 | -.00207 | -.01274 |
| .155 | 22.399   | .00000 | 35.36069 | 1.92592 | .42019  | -.31606 | .00077  | -.00257 | -.00931 |
| .156 | 24.446   | .00000 | 35.73721 | 1.96634 | .50370  | -.35615 | .00088  | -.00190 | -.01197 |
| .156 | 26.841   | .00000 | 35.82497 | 1.99228 | .60405  | -.44133 | .00144  | -.00052 | -.00818 |
|      | GRADIENT | .00000 | -.00261  | .10187  | -.00441 | -.01689 | -.00003 | .00030  | .00038  |

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(CA-8) K2V9.1.2TS5H15.6.1F10TS401

(RJF120) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -23.000  
 TORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 120/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHA  | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|----------|--------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155     | -2.785 | .00000 | 35.10984 | -.38056 | .12947  | .64759  | .00206  | -.00085 | -.01545 |
| .154     | .146   | .00000 | 34.93238 | -.09908 | .09763  | .62502  | .00195  | -.00027 | -.01269 |
| .155     | 2.091  | .00000 | 35.18724 | .10789  | .08562  | .59997  | .00207  | -.00177 | -.01892 |
| .155     | 4.206  | .00000 | 35.27518 | .32120  | .08328  | .57333  | .00177  | .00035  | -.01350 |
| .155     | 6.205  | .00000 | 35.25126 | .51457  | .08860  | .54571  | .00159  | -.00070 | -.01367 |
| .155     | 8.276  | .00000 | 35.26864 | .72028  | .10205  | .50858  | .00140  | -.00003 | -.00993 |
| .155     | 10.325 | .00000 | 35.32738 | .92841  | .12346  | .47032  | .00192  | -.00048 | -.01577 |
| .155     | 12.449 | .00000 | 35.30918 | 1.12483 | .15303  | .43391  | .00150  | -.00063 | -.01301 |
| .155     | 14.337 | .00000 | 35.25928 | 1.30710 | .18160  | .38560  | .00155  | -.00046 | -.01416 |
| .155     | 16.405 | .00000 | 35.28102 | 1.49424 | .22015  | .32308  | .00105  | -.00147 | -.01210 |
| .155     | 18.435 | .00000 | 35.22928 | 1.64745 | .26330  | .27670  | .00067  | -.00155 | -.01314 |
| .155     | 20.438 | .00000 | 35.37708 | 1.74308 | .31334  | .25744  | .00050  | -.00114 | -.01010 |
| .155     | 22.562 | .00000 | 35.39906 | 1.80577 | .38721  | .21618  | .00105  | -.00159 | -.00849 |
| .155     | 24.483 | .00000 | 35.46277 | 1.85274 | .46540  | .14092  | .00054  | -.00084 | -.00732 |
| .156     | 26.903 | .00000 | 35.54641 | 1.87675 | .56404  | .04464  | .00121  | -.00021 | -.00883 |
| GRADIENT |        | .00000 | .02912   | .10071  | -.00676 | -.01069 | -.00003 | .00009  | .00001  |



(CA-8) K2V9.1.2TS6H15.6.1F10TS401

(RJF121) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC.  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = 17.000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 121/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHA  | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|----------|--------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155     | -2.912 | .00000 | 35.23922 | -.12945 | .11244  | -.32246 | .00079  | -.00092 | -.01217 |
| .155     | .221   | .00000 | 35.21430 | .18431  | .09055  | -.37046 | .00108  | -.00037 | -.01107 |
| .155     | 2.225  | .00000 | 35.21043 | .38212  | .08830  | -.41101 | .00096  | -.00003 | -.01157 |
| .155     | 4.285  | .00000 | 35.26704 | .59355  | .09544  | -.44998 | .00071  | -.00011 | -.00924 |
| .155     | 6.219  | .00000 | 35.31032 | .78586  | .10999  | -.48791 | .00068  | -.00041 | -.00921 |
| .155     | 8.396  | .00000 | 35.11816 | 1.01044 | .13187  | -.54120 | .00144  | -.00087 | -.01202 |
| .155     | 10.391 | .00000 | 35.15959 | 1.19318 | .16248  | -.58156 | .00149  | -.00167 | -.01325 |
| .155     | 12.380 | .00000 | 35.32758 | 1.39576 | .19743  | -.63144 | .00133  | -.00141 | -.01239 |
| .154     | 14.425 | .00000 | 34.85985 | 1.59346 | .23973  | -.68229 | .00124  | -.00065 | -.01135 |
| .155     | 16.485 | .00000 | 35.21478 | 1.76629 | .28366  | -.69237 | .00113  | -.00134 | -.01333 |
| .155     | 18.549 | .00000 | 35.43233 | 1.89861 | .33484  | -.67919 | .00041  | -.00150 | -.00726 |
| .156     | 20.504 | .00000 | 35.74330 | 1.98923 | .39082  | -.68672 | .00092  | -.00162 | -.01149 |
| .157     | 22.522 | .00000 | 35.93072 | 2.02688 | .46745  | -.69563 | .00147  | -.00168 | -.00588 |
| .156     | 24.449 | .00000 | 35.85747 | 2.06676 | .54931  | -.71250 | .00140  | -.00160 | -.00605 |
| .156     | 26.791 | .00000 | 35.89301 | 2.08235 | .64996  | -.78827 | .00231  | -.00038 | -.00450 |
| GRADIENT |        | .00000 | .00264   | .10028  | -.00253 | -.01780 | -.00001 | .00012  | .00034  |

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(CA-8) K2V9.1.2TS6

FOTS401

(RJF122) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 122/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -2.951   | .00000 | 35.41381 | -.31198 | .05059  | -.03086 | .00062  | .00083  | -.01563 |
| .155 | .229     | .00000 | 35.14612 | -.03361 | .04388  | -.02837 | .00023  | -.00011 | -.01219 |
| .155 | 2.263    | .00000 | 35.23155 | .15091  | .04365  | -.02146 | .00026  | -.00040 | -.01479 |
| .155 | 4.161    | .00000 | 35.18360 | .31757  | .04833  | -.01861 | .00011  | -.00020 | -.01481 |
| .155 | 6.232    | .00000 | 35.00924 | .49628  | .05806  | -.01911 | .00036  | .00039  | -.01342 |
| .155 | 8.250    | .00000 | 35.31279 | .66443  | .07212  | -.01697 | .00054  | .00012  | -.01086 |
| .155 | 10.200   | .00000 | 35.10627 | .81506  | .09253  | -.00629 | .00071  | -.00108 | -.01117 |
| .155 | 12.381   | .00000 | 35.18370 | .96460  | .13454  | .01159  | .00015  | -.00032 | -.00999 |
| .155 | 14.387   | .00000 | 35.42784 | 1.08387 | .19315  | .02199  | .00069  | -.00141 | -.01016 |
| .156 | 16.393   | .00000 | 35.48706 | 1.18643 | .25909  | .04904  | .00094  | -.00044 | -.00997 |
| .156 | 18.357   | .00000 | 35.54621 | 1.27721 | .32774  | .07768  | .00111  | -.00096 | -.00947 |
| .156 | 20.385   | .00000 | 35.82140 | 1.32652 | .40141  | .10113  | .00120  | -.00234 | -.00625 |
| .157 | 22.418   | .00000 | 36.10103 | 1.33376 | .47029  | .12485  | .00037  | -.00080 | -.00636 |
| .157 | 24.492   | .00000 | 35.95502 | 1.34942 | .53684  | .14904  | .00009  | .00069  | -.00652 |
| .158 | 26.724   | .00000 | 36.70897 | 1.36019 | .60274  | .17727  | -.00092 | .00133  | -.00156 |
|      | GRADIENT | .00000 | -.02889  | .08866  | -.00183 | .00182  | -.00007 | -.00016 | .00005  |

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(CA-8) K2V9.1.2TS6H15.6.1FOTS401

(RJF123) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BOFLAP = -11.700

RUN NO. 123/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSE)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -2.774   | .00000 | 35.08788 | -.37748 | .06835  | .26346  | .00116  | .00050  | -.01352 |
| .155 | .231     | .00000 | 35.06495 | -.09443 | .04972  | .21751  | .00097  | -.00007 | -.01395 |
| .155 | 2.158    | .00000 | 35.08280 | .08931  | .04742  | .18507  | .00050  | -.00053 | -.01644 |
| .154 | 4.339    | .00000 | 34.90437 | .29053  | .05213  | .14194  | .00030  | .00001  | -.01282 |
| .155 | 6.157    | .00000 | 35.32663 | .45342  | .06107  | .10200  | .00072  | .00008  | -.01259 |
| .155 | 8.267    | .00000 | 35.09836 | .64286  | .07520  | .05431  | .00114  | -.00106 | -.01334 |
| .155 | 10.268   | .00000 | 35.18554 | .81796  | .09724  | .01794  | .00116  | -.00195 | -.01405 |
| .155 | 12.295   | .00000 | 35.14568 | .96040  | .13739  | -.00568 | .00042  | -.00138 | -.00911 |
| .156 | 14.270   | .00000 | 35.50110 | 1.08913 | .19557  | -.03889 | .00082  | -.00200 | -.01176 |
| .155 | 16.211   | .00000 | 35.32880 | 1.20514 | .26270  | -.05246 | .00064  | -.00170 | -.00960 |
| .156 | 18.301   | .00000 | 35.55466 | 1.30728 | .33714  | -.08171 | .00050  | -.00154 | -.00824 |
| .157 | 20.359   | .00000 | 35.95753 | 1.38090 | .41884  | -.08651 | .00122  | -.00373 | -.00930 |
| .157 | 22.434   | .00000 | 36.02101 | 1.39578 | .49224  | -.11519 | -.00063 | -.00064 | -.00279 |
| .158 | 24.311   | .00000 | 36.42434 | 1.43230 | .56366  | -.17147 | -.00047 | -.00040 | -.00342 |
| .157 | 26.489   | .00000 | 36.21316 | 1.48847 | .65027  | -.30070 | -.00067 | .00022  | -.00410 |
|      | GRADIENT | .00000 | -.02208  | .09405  | -.00237 | -.01698 | -.00013 | -.00009 | -.00003 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K2V9.1.2TS6H15.6.1F0TS401

(RJF124) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 124/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -2.843   | .00000 | 35.12976 | -.35442 | .06722  | .16801  | .00135  | -.00086 | -.01801 |
| .155 | .194     | .00000 | 35.13048 | -.06796 | .04888  | .11267  | .00103  | -.00086 | -.01817 |
| .155 | 2.161    | .00000 | 35.15055 | .11475  | .04797  | .07724  | .00040  | -.00027 | -.01397 |
| .155 | 4.279    | .00000 | 35.13652 | .30524  | .05334  | .03500  | .00050  | -.00022 | -.01263 |
| .155 | 6.239    | .00000 | 35.21350 | .49392  | .06270  | -.00890 | .00049  | -.00094 | -.00962 |
| .155 | 8.257    | .00000 | 35.18389 | .67242  | .07800  | -.05587 | .00102  | -.00039 | -.01278 |
| .155 | 10.261   | .00000 | 35.20074 | .84458  | .10158  | -.09188 | .00050  | -.00156 | -.01169 |
| .155 | 12.266   | .00000 | 35.22451 | .98897  | .14155  | -.11925 | .00056  | -.00187 | -.01114 |
| .155 | 14.425   | .00000 | 35.25681 | 1.13103 | .20770  | -.15066 | .00080  | -.00245 | -.01165 |
| .155 | 16.340   | .00000 | 35.37234 | 1.23628 | .27341  | -.16091 | .00078  | -.00180 | -.01136 |
| .156 | 18.356   | .00000 | 35.73748 | 1.33507 | .34706  | -.17090 | .00035  | -.00156 | -.00901 |
| .156 | 20.400   | .00000 | 35.65277 | 1.40744 | .42959  | -.18925 | .00073  | -.00296 | -.00796 |
| .157 | 22.456   | .00000 | 36.06354 | 1.42592 | .50598  | -.21831 | -.00042 | -.00069 | -.00253 |
| .157 | 24.377   | .00000 | 36.19205 | 1.45920 | .57776  | -.27330 | -.00031 | -.00003 | -.00415 |
| .158 | 26.680   | .00000 | 36.59107 | 1.50866 | .66817  | -.39729 | -.00029 | .00019  | -.00371 |
|      | GRADIENT | .00000 | .00172   | .09273  | -.00203 | -.01860 | -.00014 | .00010  | .00083  |

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(CA-8) K2V9.1.2TS6H15.6.1F0TS401

(RJF125) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 TORB = 3.000 ELEVON = .000  
 BOFLAP = -11.700

RUN NO. 125/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -2.881   | .00000 | 35.08947 | -.33541 | .06708  | .06803  | .00086  | .00031  | -.01321 |
| .155 | .198     | .00000 | 35.11362 | -.04280 | .04883  | .00975  | .00053  | .00085  | -.01202 |
| .155 | 2.170    | .00000 | 35.10945 | .14294  | .04851  | -.02731 | .00038  | .00006  | -.01356 |
| .155 | 4.176    | .00000 | 35.12798 | .33245  | .05434  | -.06808 | .00025  | -.00064 | -.01371 |
| .155 | 6.304    | .00000 | 35.18537 | .51433  | .06585  | -.11704 | .00042  | -.00096 | -.01355 |
| .155 | 8.233    | .00000 | 35.21262 | .69726  | .08172  | -.16289 | .00058  | -.00102 | -.01395 |
| .155 | 10.243   | .00000 | 35.08535 | .86709  | .10670  | -.20055 | .00058  | -.00187 | -.01273 |
| .155 | 12.391   | .00000 | 35.39437 | 1.02819 | .15167  | -.23061 | .00000  | -.00157 | -.00957 |
| .155 | 14.873   | .00000 | 35.27577 | 1.18738 | .23164  | -.26191 | .00026  | -.00199 | -.00977 |
| .156 | 16.474   | .00000 | 35.66750 | 1.27179 | .28753  | -.26818 | .00013  | -.00112 | -.00653 |
| .156 | 18.413   | .00000 | 35.69930 | 1.36555 | .35940  | -.26749 | .00023  | -.00143 | -.00770 |
| .157 | 20.420   | .00000 | 35.94653 | 1.42982 | .44073  | -.28702 | .00093  | -.00317 | -.00873 |
| .157 | 22.374   | .00000 | 36.09948 | 1.44529 | .51334  | -.30702 | -.00061 | -.00117 | -.00368 |
| .157 | 24.475   | .00000 | 36.27272 | 1.47819 | .59267  | -.36672 | -.00064 | -.00041 | -.00309 |
| .157 | 26.646   | .00000 | 36.32425 | 1.52338 | .67859  | -.47942 | -.00046 | .00098  | -.00442 |
|      | GRADIENT | .00000 | .00491   | .09462  | -.00191 | -.01922 | -.00009 | -.00014 | -.00011 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS6H15.6.1F0TS401

(RJF126) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 126/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHA  | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|----------|--------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155     | -2.830 | .00000 | 35.03349 | -.34692 | .06250  | .31815  | .00185  | -.00080 | -.01686 |
| .155     | .089   | .00000 | 35.03220 | -.07824 | .04695  | .27950  | .00137  | .00047  | -.01301 |
| .155     | 2.215  | .00000 | 35.02858 | .11211  | .04627  | .24321  | .00143  | -.00019 | -.01505 |
| .154     | 4.166  | .00000 | 34.95969 | .30281  | .05253  | .20635  | .00179  | -.00097 | -.01754 |
| .154     | 6.207  | .00000 | 34.95469 | .49602  | .06379  | .16104  | .00187  | -.00027 | -.01400 |
| .155     | 8.251  | .00000 | 35.01646 | .68297  | .08192  | .11541  | .00236  | -.00085 | -.01361 |
| .155     | 10.211 | .00000 | 35.03892 | .84327  | .10702  | .07898  | .00217  | -.00188 | -.01481 |
| .155     | 12.220 | .00000 | 35.06652 | .99993  | .14991  | .05036  | .00131  | -.00062 | -.00946 |
| .155     | 14.312 | .00000 | 35.19508 | 1.13585 | .21406  | .01767  | .00236  | -.00261 | -.01149 |
| .156     | 16.382 | .00000 | 35.55618 | 1.25403 | .26489  | .00010  | .00265  | -.00183 | -.01401 |
| .156     | 18.452 | .00000 | 35.78623 | 1.36395 | .36213  | -.01884 | .00206  | -.00154 | -.01075 |
| .156     | 20.369 | .00000 | 35.83590 | 1.43617 | .44197  | -.04093 | .00162  | -.00265 | -.00924 |
| .157     | 22.337 | .00000 | 35.94360 | 1.46128 | .51820  | -.05900 | .00069  | -.00151 | -.00592 |
| .157     | 24.356 | .00000 | 35.99272 | 1.49878 | .59609  | -.10690 | -.00013 | -.00045 | -.00336 |
| .157     | 26.722 | .00000 | 36.16293 | 1.55244 | .69080  | -.23623 | -.00056 | .00084  | -.00119 |
| GRADIENT |        | .00000 | -.00911  | .09248  | -.00152 | -.01567 | -.00001 | -.00003 | -.00011 |

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(CA-8) K3V9.1.2TS6H15.6.1FOTS401

(RJF127) ( 18 JUN '76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 127/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .154 | -2.836   | .00000 | 34.95780 | -.32885 | .06098  | .23026  | .00168  | .00027  | -.01403 |
| .155 | .130     | .00000 | 35.02249 | -.05425 | .04616  | .18260  | .00136  | .00070  | -.01260 |
| .154 | 2.171    | .00000 | 35.00489 | .14754  | .04708  | .14482  | .00141  | -.00055 | -.01599 |
| .155 | 4.176    | .00000 | 35.05840 | .33494  | .05390  | .10698  | .00172  | -.00037 | -.01689 |
| .155 | 6.267    | .00000 | 35.28864 | .53153  | .06686  | .05876  | .00243  | -.00068 | -.01670 |
| .155 | 8.238    | .00000 | 35.29116 | .69487  | .08486  | .01789  | .00204  | -.00094 | -.01342 |
| .155 | 10.263   | .00000 | 35.22253 | .87422  | .11124  | -.02469 | .00158  | -.00184 | -.01240 |
| .155 | 12.399   | .00000 | 35.25039 | 1.03147 | .15799  | -.05460 | .00128  | -.00166 | -.01164 |
| .155 | 14.350   | .00000 | 35.32842 | 1.16392 | .22140  | -.08739 | .00223  | -.00243 | -.01214 |
| .156 | 16.434   | .00000 | 35.51066 | 1.27953 | .29304  | -.10289 | .00195  | -.00148 | -.01062 |
| .156 | 18.398   | .00000 | 35.69122 | 1.38119 | .36622  | -.11732 | .00174  | -.00136 | -.01064 |
| .156 | 20.350   | .00000 | 35.61905 | 1.46049 | .44864  | -.13590 | .00130  | -.00229 | -.00905 |
| .156 | 22.459   | .00000 | 35.78047 | 1.48862 | .53387  | -.15603 | .00031  | -.00087 | -.00541 |
| .157 | 24.462   | .00000 | 36.31187 | 1.51882 | .60883  | -.19766 | -.00007 | -.00019 | -.00288 |
| .157 | 26.738   | .00000 | 36.18695 | 1.57290 | .70337  | -.32827 | -.00038 | .00086  | -.00200 |
|      | GRADIENT | .00000 | .01254   | .09496  | -.00108 | -.01759 | .00000  | -.00013 | -.00048 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS6H15.6.1F0TS401

(RJF128) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 TORB = 6.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 128/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -2.841   | .00000 | 35.21113 | -.30493 | .06106  | .14276  | .00145  | -.00084 | -.01538 |
| .155 | .126     | .00000 | 35.23667 | -.02168 | .04764  | .08539  | .00126  | -.00145 | -.01650 |
| .155 | 2.143    | .00000 | 35.29221 | .16420  | .04879  | .05088  | .00089  | -.00023 | -.01250 |
| .155 | 4.288    | .00000 | 35.16775 | .37586  | .05745  | .00336  | .00180  | -.00155 | -.01808 |
| .155 | 6.327    | .00000 | 35.24564 | .55593  | .07135  | -.04053 | .00184  | -.00101 | -.01465 |
| .155 | 8.248    | .00000 | 35.26908 | .73592  | .08952  | -.09116 | .00204  | -.00164 | -.01242 |
| .155 | 10.321   | .00000 | 35.13302 | .90695  | .11838  | -.13155 | .00151  | -.00252 | -.01457 |
| .155 | 12.355   | .00000 | 35.15730 | 1.05261 | .16301  | -.16157 | .00116  | -.00211 | -.01279 |
| .155 | 13.326   | .00000 | 35.21835 | 1.12029 | .19214  | -.17988 | .00108  | -.00200 | -.01089 |
| .155 | 14.303   | .00000 | 35.15971 | 1.18156 | .22573  | -.19253 | .00210  | -.00334 | -.01257 |
| .156 | 16.391   | .00000 | 35.59149 | 1.36016 | .29905  | -.20777 | .00161  | -.00146 | -.01045 |
| .156 | 18.428   | .00000 | 35.74018 | 1.40820 | .37705  | -.21756 | .00135  | -.00099 | -.00819 |
| .156 | 20.359   | .00000 | 35.75257 | 1.47871 | .45881  | -.22872 | .00139  | -.00328 | -.01133 |
| .156 | 22.406   | .00000 | 35.78124 | 1.50484 | .54063  | -.24203 | .00061  | -.00169 | -.00670 |
| .157 | 24.516   | .00000 | 36.09855 | 1.54835 | .62613  | -.30152 | -.00057 | -.00006 | -.00465 |
| .157 | 26.759   | .00000 | 36.08803 | 1.59384 | .71836  | -.41397 | -.00026 | .00129  | -.00165 |
|      | GRADIENT | .00000 | -.00245  | .09522  | -.00059 | -.01933 | .00002  | -.00004 | -.00017 |



(CA-8) K3V9.1.2T55

F0T5401

(RJF129) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 TORB = 6.000 ELEVON = .000  
 BDFLAP = -11.700

PUN NO. 129/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -2.923   | .00000 | 35.14900 | -.25079 | .05927  | -.03890 | .00097  | .00067  | -.01022 |
| .155 | .147     | .00000 | 35.06550 | .01088  | .04600  | -.03835 | .00104  | .00018  | -.01497 |
| .155 | 2.132    | .00000 | 35.11163 | .19526  | .04719  | -.03430 | .00069  | .00035  | -.01303 |
| .155 | 4.192    | .00000 | 35.21561 | .35898  | .05496  | -.03198 | .00095  | .00031  | -.01349 |
| .155 | 6.324    | .00000 | 35.25559 | .56222  | .06732  | -.03300 | .00143  | -.00099 | -.01536 |
| .155 | 8.269    | .00000 | 35.29582 | .72462  | .08448  | -.03065 | .00146  | -.00051 | -.01149 |
| .155 | 10.434   | .00000 | 35.29637 | .88380  | .11110  | -.01929 | .00094  | -.00093 | -.00995 |
| .155 | 12.331   | .00000 | 35.28726 | 1.00885 | .14953  | .00086  | .00123  | -.00128 | -.00976 |
| .155 | 14.292   | .00000 | 35.45068 | 1.13667 | .21004  | .01241  | .00215  | -.00217 | -.01246 |
| .156 | 16.331   | .00000 | 35.53019 | 1.24016 | .27813  | .04166  | .00283  | -.00092 | -.01227 |
| .156 | 18.352   | .00000 | 35.70566 | 1.33932 | .35185  | .07584  | .00295  | -.00086 | -.01052 |
| .156 | 20.451   | .00000 | 35.78784 | 1.40129 | .42989  | .10532  | .00249  | -.00136 | -.00812 |
| .156 | 22.340   | .00000 | 35.83248 | 1.41121 | .49880  | .13097  | .00202  | -.00049 | -.00781 |
| .157 | 24.355   | .00000 | 35.96845 | 1.42958 | .55839  | .16343  | .00090  | .00107  | -.00165 |
| .158 | 26.726   | .00000 | 36.48348 | 1.44142 | .64287  | .19719  | .00064  | .00198  | -.00460 |
|      | GRADIENT | .00000 | .00855   | .08752  | -.00071 | .00102  | -.00002 | -.00004 | -.00039 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3V9.1.2TS6

FOTS402

(RJF130) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 IOR8 = 6.000 ELEVON = .000  
 BOFLAP = .000

RUN NO. 130/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .154 | -2.960   | .00000 | 34.93757 | -.27788 | .07464  | -.01629 | .00130  | .00027  | -.01473 |
| .155 | .125     | .00000 | 35.03854 | .00131  | .05934  | -.01749 | .00117  | -.00005 | -.01456 |
| .155 | 2.146    | .00000 | 35.06854 | .17115  | .06013  | -.01254 | .00079  | -.00153 | -.01940 |
| .155 | 4.205    | .00000 | 35.09100 | .34677  | .06759  | -.01344 | .00080  | -.00080 | -.01302 |
| .155 | 6.325    | .00000 | 35.10489 | .54773  | .07931  | -.01294 | .00103  | -.00005 | -.01354 |
| .155 | 8.239    | .00000 | 35.10264 | .70017  | .09485  | -.01238 | .00115  | -.00073 | -.01635 |
| .155 | 10.257   | .00000 | 35.16405 | .84932  | .11848  | .00255  | .00061  | -.00131 | -.01288 |
| .155 | 12.437   | .00000 | 35.15664 | .99597  | .16272  | .02568  | .00045  | -.00109 | -.00882 |
| .155 | 14.248   | .00000 | 35.23708 | 1.11611 | .21862  | .03671  | .00087  | -.00159 | -.00760 |
| .155 | 16.388   | .01000 | 35.40257 | 1.21810 | .28803  | .06938  | .00237  | -.00128 | -.01284 |
| .156 | 18.418   | .01000 | 35.90124 | 1.31838 | .36195  | .09827  | .00241  | -.00080 | -.01077 |
| .157 | 20.444   | .01000 | 35.91287 | 1.38417 | .43837  | .12831  | .00191  | -.00102 | -.00873 |
| .157 | 22.422   | .01000 | 35.90828 | 1.39731 | .51110  | .15475  | .00119  | -.00026 | -.00670 |
| .157 | 24.447   | .01000 | 35.95381 | 1.41794 | .58155  | .18530  | .00033  | .00089  | -.00291 |
| .157 | 26.717   | .01000 | 36.07511 | 1.43503 | .65459  | .21480  | .00005  | .00175  | -.00107 |
|      | GRADIENT | .00000 | .02145   | .08708  | -.00108 | .00054  | -.00008 | -.00020 | -.00001 |

(CA-8) K3V9.1.2TS6H15.6.1F0TS402

(RJF131) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = .1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = .000  
 BDFLAP = .000

RUN NO. 131/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHA  | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|----------|--------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155     | -2.852 | .00000 | 35.43724 | -.36328 | .08127  | .33330  | .00187  | .00088  | -.01305 |
| .155     | .225   | .00000 | 35.14443 | -.07504 | .06289  | .28553  | .00165  | -.00148 | -.01476 |
| .155     | 2.160  | .00000 | 35.03498 | .10949  | .06229  | .25116  | .00172  | -.00041 | -.01612 |
| .155     | 4.284  | .00000 | 35.11201 | .29851  | .06806  | .21119  | .00141  | -.00089 | -.01407 |
| .155     | 6.385  | .00000 | 35.12982 | .49941  | .08043  | .16617  | .00186  | -.00077 | -.01468 |
| .155     | 8.172  | .00000 | 35.21428 | .66920  | .09514  | .12783  | .00202  | -.00003 | -.01326 |
| .155     | 10.323 | .00000 | 35.23148 | .84520  | .12248  | .09012  | .00153  | -.00171 | -.01271 |
| .155     | 12.163 | .00000 | 35.25736 | .97543  | .16186  | .07219  | .00105  | -.00169 | -.01170 |
| .155     | 14.391 | .00000 | 35.36139 | 1.11406 | .22572  | .04454  | .00137  | -.00224 | -.00925 |
| .155     | 16.343 | .00000 | 35.43551 | 1.22340 | .29219  | .03541  | .00207  | -.00155 | -.00855 |
| .156     | 18.441 | .00000 | 35.60433 | 1.34719 | .37315  | .01878  | .00142  | -.00143 | -.00690 |
| .156     | 20.490 | .00000 | 35.62269 | 1.41897 | .45388  | -.00164 | .00089  | -.00220 | -.00497 |
| .156     | 22.459 | .00000 | 35.80883 | 1.44354 | .53157  | -.02370 | -.00023 | -.00108 | -.00370 |
| .157     | 24.484 | .00000 | 35.94579 | 1.48568 | .61177  | -.08004 | -.00086 | -.00025 | -.00066 |
| .157     | 26.740 | .00000 | 36.23182 | 1.53770 | .70185  | -.21152 | -.00060 | .00058  | -.00041 |
| GRADIENT |        | .00000 | -.04914  | .09301  | -.00194 | -.01708 | -.00006 | -.00021 | -.00021 |

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(RJF132) ( 18 JUN 76 )

## PARAMETRIC DATA

|        |   |       |        |   |       |
|--------|---|-------|--------|---|-------|
| BETA   | = | .000  | RN/L   | = | 1.090 |
| STAB   | = | .000  | ELEVTR | = | .000  |
| IOR8   | = | 6.000 | ELEVON | = | .000  |
| BDFLAP | = | .000  |        |   |       |

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .154 | -2.837   | .00000 | 34.83769 | -.31526 | .07758  | .15365  | .00176  | .00104  | -.01056 |
| .154 | .236     | .00000 | 34.87543 | -.02777 | .06206  | .09675  | .00140  | .00045  | -.01354 |
| .155 | 2.160    | .00000 | 35.05965 | .15053  | .06293  | .06064  | .00107  | -.00030 | -.01159 |
| .155 | 4.185    | .00000 | 35.07466 | .35421  | .07058  | .01961  | .00144  | .00036  | -.01306 |
| .155 | 6.239    | .00000 | 35.10980 | .54172  | .08372  | -.02515 | .00147  | -.00120 | -.01462 |
| .155 | 8.233    | .00000 | 35.10316 | .71585  | .10229  | -.07358 | .00152  | -.00155 | -.01255 |
| .155 | 10.438   | .00000 | 35.18710 | .90585  | .13230  | -.11401 | .00052  | -.00152 | -.01016 |
| .155 | 12.356   | .00000 | 35.18612 | 1.02903 | .17421  | -.13333 | .00047  | -.00129 | -.00798 |
| .155 | 14.548   | .00000 | 35.31018 | 1.18481 | .24576  | -.16232 | .00167  | -.00254 | -.01080 |
| .155 | 16.387   | .00000 | 35.44974 | 1.29029 | .31235  | -.16937 | .00200  | -.00197 | -.01234 |
| .156 | 18.423   | .00000 | 35.58443 | 1.38756 | .38660  | -.17279 | .00126  | -.00184 | -.00784 |
| .156 | 20.479   | .00000 | 35.59631 | 1.46661 | .47286  | -.18907 | .00100  | -.00241 | -.00680 |
| .156 | 22.435   | .00000 | 35.58210 | 1.48768 | .55041  | -.20414 | -.00011 | -.00130 | -.00460 |
| .156 | 24.419   | .00000 | 35.60244 | 1.52892 | .63160  | -.25992 | -.00067 | -.00026 | .00054  |
| .158 | 26.712   | .00000 | 36.39449 | 1.56917 | .72319  | -.37708 | -.00099 | .00100  | .00303  |
|      | GRADIENT | .00000 | .03837   | .09500  | -.00111 | -.01903 | -.00006 | -.00013 | -.00027 |

(RJF133) (18 JUN 76-)

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 4.192   | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

[illegible]

(CA-8) K2.1T57H15.6.1F30TS40IG5.3.5

(RJF134) ( 18 JUN 76 )

## REFERENCE DATA

```
SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400
```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 6.216   | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 134/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA   | Q (PSF)  | CL      | CD     | CLM     | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|---------|--------|---------|--------|---------|---------|--------|
| .155 | 11.341   | 6.21624 | 35.01813 | 1.53059 | .20317 | -.34597 | .00271 | .00729  | .01571  | .00000 |
| .155 | 13.367   | 6.19338 | 35.05590 | 1.52012 | .21094 | -.35788 | .00105 | .00690  | .01418  | .00000 |
| .156 | 22.443   | 6.18165 | 35.41465 | 1.46807 | .23229 | -.31413 | .00095 | .00291  | .00813  | .00000 |
| .155 | 38.382   | 6.16774 | 35.12793 | 1.41409 | .24659 | -.25204 | .00018 | -.00345 | -.00741 | .00000 |
| .156 | 54.042   | 6.14574 | 35.29788 | 1.38889 | .25239 | -.22959 | .00048 | -.00229 | -.00908 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  | .00300 | .00000  | .00000 | .00000  | .00000  | .00000 |

(CA-B) K2.1TS7H15.6.1F30TS40IG5.3.5

(RJF135) ( 18 JUN 76 )

## REFERENCE DATA

```
SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400
```

## PARAMETRIC DATA

```
ALPHA =      8.254  RN/L =      1.090
STAB   =     -2.000  ELEVTR =      .000
IORB   =      3.000  ELEVON = - - - -.000
BDFLAP =    -11.700
```

RUN NO. 135/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF136) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      .219    RN/L   =      1.090
STAB   =     -2.000    ELEVTR =      .000
IORB   =      3.000    ELEVON =      .000
BDFLAP =     -11.700
```

RUN NO. 136/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF137) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 2.234   | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 137/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF138) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 10.169  | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 138/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF139) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 12.226 RN/L = 1.090
STAB = -2.000 ELEVTR = .000
TORB = 3.000 ELEVON = .000
BDFLAP = -11.700
```

RUN NO. 139/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|----------|----------|---------|--------|---------|---------|---------|---------|--------|
| .155 | 20.589   | 12.22593 | 35.07877 | 1.94707 | .29479 | -.45889 | -.00056 | .00328  | .00519  | .00000 |
| .155 | 37.097   | 12.22627 | 35.19298 | 1.91242 | .32727 | -.37606 | .00028  | -.00196 | -.01135 | .00000 |
| .155 | 52.139   | 12.24860 | 35.14890 | 1.90278 | .33775 | -.33873 | .00063  | -.00140 | -.01118 | .00000 |
| .155 | 94.658   | 12.29966 | 35.17632 | 1.90458 | .35071 | -.31597 | .00086  | -.00286 | -.01168 | .00000 |
|      | GRADIENT | .00000   | .00000   | .00000  | .00000 | .00030  | .00000  | .00000  | .00000  | .00000 |

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(RJF140) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 14.293  | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 140/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF141) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 16.297 RN/L = 1.090
STAB = -2.000 ELEVTR = .000
IORB = 3.000 ELEVON = .000
BDFLAP = -11.700
```

RUN NO. 141/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



(CA-8) K2.1TS7H15.6.1F30TS401G5.3.5

(RJF142) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | .177    | RN/L =   | 1.090 |
| STAB =   | -4.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 142/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5

(RJF143) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      2.164      RN/L   =      1.090
STAB    =     -4.000      ELEVTR =     -0.000
IORB    =      3.000      ELEVON =      0.000
BDFLAP  =     -11.700
```

RUN NO. 143/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF144) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 4.247   | RN/L =   | 1.090 |
| STAB =   | -4.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 144/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF145) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 6.166   | RN/L =   | 1.090 |
| STAB =   | -4.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 145/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F30TS401G5.3.5

(RJF146) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHA = 8.099 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 146/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA   | Q(PSF)   | CL      | CD     | CLM     | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|---------|--------|---------|--------|---------|---------|--------|
| .155 | 11.340   | 8.09886 | 35.17593 | 1.63711 | .21548 | -.29156 | .00338 | .00815  | .00946  | .00000 |
| .155 | 12.252   | 8.06892 | 35.05843 | 1.63879 | .21900 | -.30123 | .00261 | .00792  | .01342  | .00000 |
| .155 | 21.480   | 8.06474 | 34.95012 | 1.60705 | .24779 | -.27607 | .00039 | .00289  | .00367  | .00000 |
| .156 | 37.454   | 8.06995 | 35.29380 | 1.54568 | .26784 | -.20561 | .00047 | -.00176 | -.00878 | .00000 |
| .156 | 52.908   | 8.06359 | 35.28043 | 1.53211 | .27412 | -.17440 | .00044 | -.00205 | -.01108 | .00000 |
| .156 | 74.113   | 8.22981 | 35.41816 | 1.53520 | .28079 | -.16277 | .00076 | -.00198 | -.01392 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  | .00000 | .00000  | .00000 | .00000  | .00000  | .00000 |

(CA-8) K2.1TS7H15.6.1F30TS401G5.3.5

(RJF147) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHA = 10.174 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 147/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA    | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|----------|----------|---------|--------|---------|---------|---------|---------|--------|
| .155 | 11.327   | 10.17356 | 35.10087 | 1.79014 | .22999 | -.35390 | .00169  | .00842  | .01715  | .00000 |
| .155 | 14.393   | 10.14802 | 35.10377 | 1.79278 | .24483 | -.36233 | .00070  | .00488  | .01157  | .00000 |
| .155 | 21.308   | 10.15182 | 35.05951 | 1.77922 | .27015 | -.33051 | .00000  | .00470  | .00716  | .00000 |
| .155 | 37.805   | 10.16635 | 35.20797 | 1.73183 | .29546 | -.24688 | -.00023 | -.00176 | -.00593 | .00000 |
| .155 | 53.033   | 10.17807 | 35.23365 | 1.71195 | .30382 | -.20987 | .00102  | -.00040 | -.01160 | .00000 |
| .155 | 80.764   | 10.15108 | 35.23584 | 1.70377 | .30890 | -.19214 | .00087  | -.00152 | -.01424 | .00000 |
|      | GRADIENT | .00000   | .00000   | .00000  | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

REPRODUCIBILITY OF THE  
 ORIGINAL PAGE IS POOR

CA-8 - FORCE SOURCE DATA TABULATION

(CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5

(RJF148) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 12.110  | RN/L =   | 1.090 |
| STAB =   | -4.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 148/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1T57H15.6.1F30TS40IG5.3.5

(RJF149) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 14.219  | RN/L =   | 1.090 |
| STAB =   | -4.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 149/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5

(RJF150) ( 18 JUN '76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW = 16.235 RN/L = 1.090
STAB = -4.000 ELEVTR = .000
IORB = 3.000 ELEVON = .000
BDFLAP = -11.700
```

RUN NO. 150/ 0    RN/L =    .00    GRADIENT INTERVAL' = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F30TS401G5.3.5

(RJF151) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | .159    | RN/L =   | i.090 |
| STAB =   | -6.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 151/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF152) ( 18 JUN 76 )

## PARAMETRIC DATA

|        |   |         |        |   |       |
|--------|---|---------|--------|---|-------|
| ALPHAW | = | 4.158   | RN/L   | = | 1.090 |
| STAB   | = | -6.000  | ELEVTR | = | .000  |
| IORB   | = | 3.000   | ELEVON | = | .000  |
| BDFLAP | = | -11.700 |        |   |       |

[illegible]

(RJF153) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 8.110   | RN/L =   | 1.090 |
| STAB =   | -6.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

[illegible]

(RJF154) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 6.239   | RN/L =   | 1.090 |
| STAB =   | -6.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 154/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ .5.00

[illegible]

(RJF155) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 10.147   RN/L = 1.090
STAB = -6.000     ELEVTR = .000
TORB = 3.000      ELEVON = .000
BDFLAP = -11.700
```

RUN NO. 155/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

CA-8 - FORCE SOURCE DATA TABULATION

(CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5

(RJF156) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 12.148  | RN/L =   | 1.090 |
| STAB =   | -6.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 156/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA      |
|------|----------|----------|----------|---------|--------|---------|---------|---------|---------|-----------|
| .155 | 20.564   | 12.14840 | 35.15596 | 1.89527 | .27702 | -.29643 | -.00063 | .00408  | .00924  | .00000    |
| .155 | 23.591   | 12.13496 | 35.20209 | 1.90125 | .28765 | -.27921 | -.00054 | .00345  | .01012  | .00000    |
| .155 | 39.923   | 12.15903 | 34.91826 | 1.86947 | .31834 | -.19288 | .00008  | -.00166 | -.00544 | .00000... |
| .155 | 55.260   | 12.18179 | 35.05161 | 1.85838 | .33058 | -.15496 | .00073  | -.00185 | -.01376 | .00000    |
| .156 | 85.711   | 12.27088 | 35.34460 | 1.86707 | .33933 | -.13442 | .00124  | -.00187 | -.01236 | .00000    |
|      | GRADIENT | .00000   | .00000   | .03000  | .00000 | .00000  | .00000  | .00000  | .00000  | .00000    |

(CA-8) K2.1TS7

F30TS401G5.3.5

(RJF157) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      .235      RN/L =      1.090
IORB =      3.000      ELEVN =      .000
BDFLAP =     -11.700
```

RUN NO. 157/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



(RJF158) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 4.200   | RN/L =   | 1.090 |
| TORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

```
-RUN NO. 158/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00
```

[illegible]

(RJF159) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      6.165      RN/L  =      1.090
IORB    =      3.000      ELEVON =      .000
BDFLAP  =     -11.700
```

RUN NO. 159/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

DATE 06 JUL 76

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(CA-8) K2.1TS7

F30TS401G5.3.5

(RJF160) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 8.112 RN/L = 1.090  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 160/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW  | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|---------|----------|---------|--------|---------|---------|---------|---------|--------|
| .155 | 11.340   | 8.11229 | 35.19042 | 1.63094 | .21129 | -.28232 | .00321  | .00933  | .01206  | .00000 |
| .155 | 14.348   | 8.08255 | 35.00940 | 1.63158 | .22417 | -.30502 | .00147  | .00661  | .00659  | .00000 |
| .155 | 22.148   | 8.07125 | 35.06432 | 1.60932 | .24720 | -.33112 | .00088  | .00457  | .00349  | .00000 |
| .155 | 37.763   | 8.05082 | 35.13291 | 1.58552 | .26627 | -.34737 | -.00013 | .00094  | -.00762 | .00000 |
| .155 | 53.472   | 8.19533 | 35.20936 | 1.58844 | .27645 | -.35390 | -.00105 | -.00273 | -.01017 | .00000 |
| .155 | 74.459   | 8.25989 | 35.22453 | 1.59228 | .28150 | -.35736 | -.00103 | -.00197 | -.01292 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

(CA-8) K2.1TS7

F30TS401G5.3.5

(RJF161) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 10.252 RN/L = 1.090  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 161/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|----------|----------|---------|--------|---------|---------|---------|---------|--------|
| .155 | 11.326   | 10.25223 | 35.08636 | 1.76832 | .22620 | -.27414 | .00289  | .01012  | .01065  | .00000 |
| .155 | 14.186   | 10.22444 | 35.05515 | 1.77171 | .23999 | -.29783 | .00130  | .00771  | .00957  | .00000 |
| .155 | 21.902   | 10.22146 | 35.15455 | 1.76988 | .26834 | -.33431 | -.00009 | .00312  | .00039  | .00000 |
| .155 | 38.450   | 10.21457 | 35.15116 | 1.75675 | .29500 | -.35331 | -.00034 | .00066  | -.00798 | .00000 |
| .155 | 53.767   | 10.21992 | 35.08049 | 1.74890 | .30458 | -.35962 | -.00032 | -.00010 | -.01152 | .00000 |
| .156 | 81.016   | 10.19607 | 35.34944 | 1.74806 | .31060 | -.35785 | -.00060 | -.00063 | -.01270 | .00000 |
|      | GRADIENT | .00000   | .00000   | .00000  | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

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(RJF162) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 12.237 RN/L' = 1.090
IORB = 3.000 ELEVON = .000
BDFLAP = -11.700
```

RUN NO. 162/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF163) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | .158    | RN/L =   | 1.090   |
| STAB =   | -4.000  | ELEVTR = | -23.000 |
| .IORB =  | 3.000   | ELEVON = | .000    |
| BDFLAP = | -11.700 |          |         |

RUN NO. 163/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ . 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5

(RJF164) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | 4.201   | RN/L =   | 1.090   |
| STAB =   | -4.000  | ELEVTR = | -23.000 |
| IORB =   | 3.000   | ELEVON = | .000    |
| BDFLAP = | -11.700 |          |         |

RUN NO. 164/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1T57H15.6.1F30TS40IG5.3.5

(RJF 165) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

### PARAMETRIC DATA

```

ALPHAW = 6.049    RN/L = 1.090
STAB = -4.000    ELEVTR = -23.000
IORB = 3.000    ELEVON = .000
BDFLAP = -11.700

```

RUN NO. 165/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA   | Q (PSF)  | CL      | CD     | CLM    | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|---------|--------|--------|--------|---------|---------|--------|
| .155 | 11.341   | 6.04948 | 35.45595 | 1.33900 | .20739 | .30832 | .00240 | .00793  | .01477  | .00000 |
| .155 | 13.419   | 6.09146 | 35.25715 | 1.34341 | .21647 | .28709 | .00180 | .00570  | .00565  | .00000 |
| .155 | 21.263   | 6.07748 | 35.05504 | 1.29786 | .23445 | .30820 | .00199 | .00352  | .00032  | .00000 |
| .154 | 36.610   | 6.05170 | 34.76038 | 1.24413 | .24965 | .35689 | .00094 | -.01063 | -.01042 | .00000 |
| .155 | 52.404   | 6.05926 | 35.19885 | 1.23043 | .25748 | .37412 | .00068 | -.00161 | -.01489 | .00000 |
| .155 | 62.956   | 6.23587 | 35.20133 | 1.23210 | .25912 | .36147 | .00090 | -.00189 | -.01790 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  | .00030 | .00000 | .00000 | .00000  | .00000  | .00000 |

(RJF166) ( 18 JUN 76 )

## PARAMETRIC DATA

|        |   |         |        |   |         |
|--------|---|---------|--------|---|---------|
| ALPHAW | = | 8.213   | RN/L   | = | 1.090   |
| STAB   | = | -4.000  | ELEVTR | = | -23.000 |
| IORB   | = | 3.000   | ELEVON | = | .000    |
| BDFLAP | = | -11.700 |        |   |         |

RUN NO. 166/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF167) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | 10.229  | RN/L =   | 11.090  |
| STAB =   | -4.000  | ELEVTR = | -23.000 |
| IORB =   | 3.000   | ELEVON = | .000    |
| BDFLAP = | -11.700 |          |         |

RUN NO. 167/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5

(RJF 168) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | 12.130  | RN/L =   | 1.090   |
| STAB =   | -4.000  | ELEVTR = | -23.000 |
| IORB =   | 3.000   | ELEVON = | .000    |
| BOFLAP = | -11.700 |          |         |

RUN NO. 168/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5

(RJF 169) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | .183    | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| IORB =   | 6.000   | ELEVON = | -5.000  |
| BOFLAP = | -11.700 |          |         |

RUN NO. 169/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF170) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | 4.177   | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| IORB =   | 6.000   | ELEVON = | -5.000  |
| BDFLAP = | -11.700 |          |         |

RUN NO. 170/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF171) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | 6.229   | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| LORB =   | 6.000   | ELEVON = | -5.000  |
| BDFLAP = | -11.700 |          |         |

RUN NO. 171/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5

(RJF:72) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      8.146   RN/L   =      1.090
STAB   =     -2.000   ELEVTR =     -23.000
IORB   =      6.000   ELEVON =      -5.000
BDFLAP =     -11.700
```

RUN NO. 172/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1T57H15.6.1F30TS40IG5.3.5

(RJF173) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW = 10.105 RN/L = 1.090
STAB = -2.000 ELEVTR = -23.000
IORB = 6.000 ELEVON = -5.000
BDFLAP = -11.700
```

RUN NO. 173/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



(CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5

(RJF174) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|        |   |         |        |   |         |
|--------|---|---------|--------|---|---------|
| ALPHAW | = | 12.126  | RN/L   | = | 1.090   |
| STAB   | = | -2.000  | ELEVTR | = | -23.000 |
| IORB   | = | 6.000   | ELEVON | = | -5.000  |
| BDFLAP | = | -11.700 |        |   |         |

RUN NO. 174/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5

(RJF175) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.       ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 4.171   | RN/L =   | 1.090  |
| STAB =   | .000    | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BOFLAP = | -11.700 |          |        |

RUN NO. 175/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

|      |          |         |          |         |  |        |         |        |         |         |        |
|------|----------|---------|----------|---------|--|--------|---------|--------|---------|---------|--------|
| MACH | GP       | ALPHAW  | Q(PSF)   | CL      |  | CD     | CLM     | CLN    | CSL     | CY      | BETA   |
| .156 | 11.331   | 4.17082 | 35.81016 | 1.37349 |  | .20135 | -.32401 | .00125 | .00552  | .02065  | .00000 |
| .157 | 13.407   | 4.14548 | 35.83570 | 1.37663 |  | .20584 | -.33071 | .00054 | .00425  | .02204  | .00000 |
| .156 | 22.661   | 4.11769 | 35.37999 | 1.30907 |  | .22279 | -.29118 | .00146 | .00209  | .01168  | .00000 |
| .155 | 38.740   | 4.10935 | 35.03209 | 1.25088 |  | .23469 | -.24566 | .00084 | -.00135 | -.00489 | .00000 |
| .154 | 53.682   | 4.17382 | 34.78007 | 1.24729 |  | .23789 | -.23077 | .00113 | -.00037 | -.00870 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  |  | .00000 | .00000  | .00000 | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5

(RJF176) ( 18 JUN 76 )

### REFERENCE DATA

```
SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400
```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 6.173   | RN/L =   | 1.090  |
| STAB =   | .000    | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 176/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5

(RJF177) ( 18 JUN 76

## REFERENCE DATA

```
SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400
```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 8.173   | RN/L =   | 1.090  |
| STAB =   | .000    | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 177/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS401G5.3.5

(RJF178) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.9000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 10.137 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 IORS = 6.000 ELEVON = -5.000  
 BOFLAP = -11.700

RUN NO. 178/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|----------|----------|---------|--------|---------|---------|---------|---------|--------|
| .155 | 11.327   | 10.13671 | 35.31619 | 1.89094 | .24944 | -.49687 | -.00144 | .00824  | .03112  | .00000 |
| .155 | 12.372   | 10.11352 | 35.23542 | 1.89147 | .25505 | -.49957 | -.00082 | .00775  | .02691  | .00000 |
| .155 | 21.309   | 10.12040 | 35.21844 | 1.87335 | .28770 | -.46618 | .00310  | .00315  | .01162  | .00000 |
| .154 | 37.628   | 10.13586 | 34.89586 | 1.82749 | .31306 | -.37096 | .00066  | -.00066 | .00043  | .00000 |
| .154 | 53.046   | 10.21972 | 34.89108 | 1.78805 | .32182 | -.33286 | .00108  | -.00142 | -.00319 | .00000 |
|      | GRADIENT | .00000   | .00000   | .00000  | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7H15.6.1F30TS401G5.3.5

(RJF179) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 12.198 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 IORS = 6.000 ELEVON = -5.000  
 BOFLAP = -11.700

RUN NO. 179/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|----------|----------|---------|--------|---------|---------|---------|---------|--------|
| .155 | 20.629   | 12.19762 | 35.21546 | 2.01379 | .30518 | -.52844 | -.00101 | .00468  | .01930  | .00000 |
| .155 | 23.973   | 12.18723 | 35.18303 | 2.01459 | .31485 | -.50673 | -.00101 | .00408  | .01597  | .00000 |
| .155 | 39.967   | 12.21278 | 34.93052 | 1.98695 | .34282 | -.41542 | .00123  | .00077  | .00225  | .00000 |
| .154 | 55.451   | 12.23126 | 34.64200 | 1.95756 | .35601 | -.37300 | .00090  | -.00207 | -.00237 | .00000 |
|      | GRADIENT | .00000   | .00000   | .00000  | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

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(RJF180) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      .151    RN/L   =      1.090
STAB   =      .000    ELEVTR =      .000
TORB   =      6.000    ELEVON =     -5.000
BDFLAP =     -11.700
```

[illegible]

(RJF181) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | .167    | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | .000   |
| IORS =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

[illegible]

(RJF182) . ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 4.137   | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

[illegible]

(RJF183) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 6.180   | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS401G5.3.5

(RJF 184) ( 18 JUN 76 )

## REFERENCE DATA

```
SREF = 5500.0000 SQ.FT.  XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.      YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400
```

## PARAMETRIC DATA

```
ALPHAW =      8.158    RN/L   =      1.090
STAB    =     -2.000    ELEVTR =      .000
IORB    =      6.000    ELEVON =     -5.000
BDFLAP  =    -11.700
```

RUN NO. 184/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS401G5.3.5

(RJF185) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 10.175  | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BOFLAP = | -11.700 |          |        |

RUN NO. 185/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1T57H15.6.1F30TS40IG5.3.5

(RJF186) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW = 12.161 RN/L = 1.090
STAB = -2.000 ELEVTR = .000
IORB = 6.000 ELEVON = -5.000
BDFLAP = -11.700
```

RUN NO. 186/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS401G5.3.5

(RJF187) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | .179    | RN/L =   | 1.090  |
| STAB =   | -4.000  | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 187/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF188) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      4.122    RN/L   =      1.090
STAB   =     -4.000    ELEVTR =      .000
IORB   =      6.000    ELEVON =     -5.000
BDFLAP =    -11.700
```

RUN NO. 188/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF189) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      6.123   RN/L   =      1.090
STAB   =     -4.000   ELEVTR =      .000
IORB   =      6.000   ELEVON =     -5.000
BDFLAP =    -11.700
```

RUN NO. 189/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



(RJF190) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 8.153   | RN/L =   | 1.090  |
| STAB =   | -4.000  | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 190/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF191) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 10.190  | RN/L =   | 1.090  |
| STAB =   | -4.000  | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 191/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF192) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 12.151  | RN/L =   | 1.090  |
| STAB =   | -4.000  | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

[illegible]

(RJF193) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | .128    | RN/L =   | 1.090  |
| ICRB =   | 6.000   | ELEVON = | -5.000 |
| BOFLAP = | -11.700 |          |        |

[illegible]

(CA-8) K3.1TS7

F30TS401G5.3.5

(RJF194) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHA = 4.126 RN/L = 1.090  
 TORB = 6.000 ELEVON = -5.000  
 BDFLAP = -11.700

RUN NO. 194/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|---------|----------|---------|--------|---------|---------|---------|---------|--------|
| .157 | 11.331   | 4.12594 | 36.09143 | 1.33313 | .19177 | -.28028 | .00273  | .00622  | .01216  | .00000 |
| .155 | 13.482   | 4.09960 | 35.15022 | 1.32375 | .19659 | -.29426 | .00200  | .00562  | .01174  | .00000 |
| .156 | 22.767   | 4.15943 | 35.38733 | 1.28401 | .21533 | -.32051 | .00106  | .00137  | .00139  | .00000 |
| .155 | 38.878   | 4.11715 | 35.13567 | 1.24879 | .22761 | -.33328 | -.00024 | -.00056 | -.00621 | .00000 |
| .155 | 53.826   | 4.16426 | 35.26370 | 1.24001 | .23129 | -.33478 | -.00104 | -.00254 | -.01235 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  | .03000 | .00000  | .00000  | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7

F30TS401G5.3.5

(RJF195) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHA = 6.186 RN/L = 1.090  
 TORB = 6.000 ELEVON = -5.000  
 BDFLAP = -11.700

RUN NO. 195/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|---------|----------|---------|--------|---------|---------|---------|---------|--------|
| .155 | 11.341   | 6.18562 | 35.13906 | 1.50535 | .20355 | -.26606 | .00253  | .00803  | .01089  | .00000 |
| .155 | 13.422   | 6.15900 | 35.21092 | 1.49835 | .20970 | -.28181 | .00207  | .00680  | .01550  | .00000 |
| .155 | 22.524   | 6.12838 | 35.25193 | 1.46482 | .23200 | -.31416 | .00062  | .00217  | .00393  | .00000 |
| .155 | 38.427   | 6.13026 | 35.29861 | 1.43394 | .24763 | -.32955 | -.00047 | -.00113 | -.00502 | .00000 |
| .155 | 54.071   | 6.21619 | 35.23734 | 1.42840 | .25475 | -.32952 | -.00029 | -.00123 | -.01024 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

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 ORIGINAL PAGE IS POOR

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(CA-8) K3.1TS7

F30TS401G5.3.5

(RJF196) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 8.187   | RN/L =   | 1.090  |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 196/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|---------|----------|---------|--------|---------|---------|---------|---------|--------|
| .155 | 11.340   | 8.18656 | 35.06438 | 1.66277 | .21699 | -.26175 | .00236  | .00954  | .01142  | .00000 |
| .155 | 12.785   | 8.16513 | 35.25659 | 1.65583 | .22424 | -.27364 | .00202  | .00866  | .01311  | .00000 |
| .155 | 22.173   | 8.15057 | 35.32282 | 1.63922 | .25267 | -.30976 | .00075  | .00434  | .00503  | .00000 |
| .155 | 38.137   | 8.14933 | 35.08781 | 1.60122 | .27388 | -.32735 | -.00029 | .00045  | -.00838 | .00000 |
| .155 | 53.641   | 8.22354 | 35.26931 | 1.61065 | .27975 | -.32833 | -.00062 | -.00237 | -.00725 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  | .03000 | .00000  | .00000  | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7

F307S401G5.3.5

(RJF197) ( 18 JUN 76 )

## REFERENCE DATA

```
SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400
```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 10.192  | RN/L =   | 1.090  |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 197/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7

F30TS401G5.3.5

(RJF198) ( 18 JUN 76 ).

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW = 12.168 RN/L = 1.090
TORB = 6.000 ELEVON = +5.000
BDFLAP = -11.700
```

RUN NO. 198/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS401G5.3.5

(RJF199) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | .171    | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | 17.000 |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 199/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



(RJF202) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 8.191   | FN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | 17.000 |
| TORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

[illegible]

(RJF203) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 10.129  | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | 17.000 |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

[illegible]

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(RJF204) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 12.192  | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | 17.000 |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

[illegible]

(RJF205) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | - .134  | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 6.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

[illegible]



(CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5

(RJF206) ( 18 JUN 76 )

## REFERENCE DATA

```

'SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 4.242   | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 6.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 206/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS401G5.3.5

(RJF207) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      6.119    RN/L   =      1.090
STAB   =     -2.000    ELEVTR =      .000
IORB   =      6.000    ELEVON =      .000
BDFLAP =     -11.700
```

RUN NO. 207/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5

(RJF208) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 8.085   | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 6.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 208/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5

(RJF209) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF. = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF  = 327.8000 IN.       YMRP = .0000 IN.YC
BREF  = 2348.0000 IN.       ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 10.183  | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 6.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 209/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF210) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 12.134 RN/L = 1.090
STAB = -2.000 ELEVTR = .000
TORB = 6.000 ELEVON = .000
BDFLAP = -11.700
```

RUN NO. 210/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF211) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | .213   | RN/L =   | 11.090 |
| STAB =   | -4.000 | ELEVTR = | .000   |
| IORB =   | 6.000  | ELEVON = | -5.000 |
| BDELAP = | .000   |          |        |

RUN NO. 211/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF212) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 4.137  | RN/L =   | 1.090  |
| STAB =   | -4.000 | ELEVTR = | .000   |
| IORB =   | 6.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

RUN NO. 212/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF213) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 6.140  | RN/L =   | 1.090  |
| STAB =   | -4.000 | ELEVTR = | .000   |
| IORB =   | 6.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

RUN NO. 213/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF214) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 8.192  | RN/L =   | 1.090  |
| STAB =   | -4.000 | ELEVTR = | .000   |
| IORB =   | 6.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

RUN NO., 214/ 0      RN/L =      .00      GRADIENT INTERVAL =      -5.00/ 5.00

[illegible]

(RJF215) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 10.124 RN/L = 1.090
STAB = -4.000 ELEVTR = .000
IORB = 6.000 ELEVON = -5.000
BDFLAP = .000
```

RUN NO. 215/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

DATE 06 JUL 76

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(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF216) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 12.123 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 216/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|----------|----------|---------|--------|---------|---------|---------|---------|--------|
| .155 | 20.570   | 12.12308 | 35.02428 | 1.90992 | .29980 | -.32844 | -.00124 | .00604  | .01914  | .00000 |
| .155 | 23.873   | 12.11235 | 34.99094 | 1.90926 | .30883 | -.30902 | .00003  | .00293  | .00665  | .00000 |
| .154 | 40.147   | 12.13105 | 34.89002 | 1.88230 | .33825 | -.22706 | -.00004 | -.00241 | -.00813 | .00000 |
| .155 | 55.359   | 12.24828 | 35.29893 | 1.87078 | .35060 | -.19139 | .00110  | -.00195 | -.01273 | .00000 |
| .155 | 84.437   | 12.26254 | 35.24528 | 1.86425 | .35936 | -.17190 | .00158  | -.00247 | -.01714 | .00000 |
|      | GRADIENT | .00000   | .00000   | .00000  | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF217) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = .194 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 217/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW | Q(PSF)   | CL     | CD     | CLM     | CLN    | CSL    | CY      | BETA   |
|------|----------|--------|----------|--------|--------|---------|--------|--------|---------|--------|
| .155 | 11.278   | .19433 | 35.21213 | .89746 | .19317 | -.12333 | .00195 | .00420 | .01751  | .00000 |
| .155 | 14.376   | .15181 | 35.17694 | .87218 | .19914 | -.12418 | .00128 | .00325 | .01265  | .00000 |
| .155 | 24.355   | .10514 | 35.03457 | .82094 | .20766 | -.10282 | .00147 | .00144 | -.00093 | .00000 |
| .155 | 33.360   | .13637 | 35.05206 | .78978 | .21257 | -.09015 | .00054 | .00053 | -.00485 | .00000 |
|      | GRADIENT | .00000 | .00000   | .00000 | .00000 | .00000  | .00000 | .00000 | .00000  | .00000 |

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(RJF218) ( 18 JUN 76 )

(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 4.059  | RN/L =   | 1.090  |
| STAB =   | -2.000 | ELEVTR = | .000   |
| IORS =   | 6.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

RUN NO. 218/ 0    RN/L. = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF219) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 6.081 RN/L = 1.090
STAB = -2.000 ELEVTR = .000
IORB = 6.000 ELEVON = -5.000
BDFLAP = .000
```

RUN NO. 219/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF220) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 8.162  | RN/L =   | 1.090  |
| STAB =   | -2.000 | ELEVTR = | .000   |
| IORB =   | 6.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

[illegible]

(RJF221) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 10.070 RN/L = 1.090
STAB = -2.000 ELEVTR = .000
IORB = 6.000 ELEVON = -5.000
BDFLAP = .000
```

[illegible]



(RJF222) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 12.211 RN/L = 1.090
STAB = -2.000 ELEVTR = .000
TORB = 6.000 ELEVON = -5.000
BDFLAP = .000
```

RUN NO. 222/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF223) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | .204  | RN/L =   | 1.090  |
| STAB =   | .000  | ELEVTR = | .000   |
| IORB =   | 6.000 | ELEVON = | -5.000 |
| BDFLAP = | .000  |          |        |

RUN NO. 223/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF224) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW = 4.117 RN/L = 1.090
STAB = .000 ELEVTR = .000
IORB = 6.000 ELEVON = -5.000
BDFLAP = .000
```

RUN NO. 224/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF225) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | 6.147 | RN/L =   | 1.090  |
| STAB =   | .000  | ELEVTR = | .000   |
| IORB =   | 6.000 | ELEVON = | -5.000 |
| BDFLAP = | .000  |          |        |

RUN NO. 225/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF226) ( 18 JUN 76 )

## PARAMETRIC DATA

|        |   |       |        |   |        |
|--------|---|-------|--------|---|--------|
| ALPHAW | = | 8.164 | RN/L   | = | 1.090  |
| STAB   | = | .000  | ELEVTR | = | .000   |
| IORB   | = | 6.000 | ELEVON | = | -5.000 |
| BDFLAP | = | .000  |        |   |        |

RUN NO: 226/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF227) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 10.089 | RN/L =   | 1.090  |
| STAB =   | .000   | ELEVTR = | .000   |
| IORB =   | 6.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

RUN NO. 227/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF228) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 12.121 RN/L = 1.090
STAB = .000 ELEVTR = .000
TORB = 6.000 ELEVON = -5.000
BOFLAP = .000
```

[illegible]

(RJF229) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | .216  | RN/L =   | 1.090  |
| IORB =   | 6.000 | ELEVON = | -5.000 |
| BOFLAP = | .000  |          |        |

[illegible]

DATE 06 JUL 76

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(CA-8) K3.1TS7

F30TS402G5.3.5

(RJF230) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHA = 4.197 RN/L = 1.090  
 IORB = 6.000 ELEVON = -5.000  
 BOFLAP = .000

RUN NO. 230/ 0 RN/L = .00 GRADIENT INTERVAL \* -5.00/ 5.00

| MACH | GP       | ALPHA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|---------|----------|---------|--------|---------|---------|---------|---------|--------|
| .155 | 11.332   | 4.19659 | 35.21429 | 1.32702 | .20640 | -.25420 | .00255  | .00807  | .02074  | .00000 |
| .155 | 14.108   | 4.17235 | 35.31045 | 1.30668 | .21451 | -.27193 | .00196  | .00755  | .01717  | .00000 |
| .155 | 23.278   | 4.13552 | 35.16605 | 1.26634 | .23118 | -.30099 | .00133  | .00431  | .00810  | .00000 |
| .155 | 39.430   | 4.08701 | 35.07149 | 1.22393 | .24274 | -.31229 | -.00031 | .00059  | -.00465 | .00000 |
| .155 | 54.449   | 4.24565 | 35.17716 | 1.24655 | .24739 | -.31588 | -.00056 | -.00050 | -.00908 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7

F30TS402G5.3.5

(RJF231) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHA = 6.094 RN/L = 1.090  
 IORB = 6.000 ELEVON = -5.000  
 BOFLAP = .000

RUN NO. 231/ 0 RN/L = .00 GRADIENT INTERVAL \* -5.00/ 5.00

| MACH | GP       | ALPHA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|---------|----------|---------|--------|---------|---------|---------|---------|--------|
| .155 | 11.341   | 6.09421 | 35.05495 | 1.48728 | .21941 | -.24317 | .00227  | .00890  | .01935  | .00000 |
| .155 | 13.102   | 6.07094 | 35.24859 | 1.48219 | .22434 | -.25971 | .00192  | .00897  | .02031  | .00000 |
| .155 | 21.973   | 6.11393 | 35.11491 | 1.44699 | .24880 | -.29307 | .00047  | .00281  | .00891  | .00000 |
| .155 | 37.896   | 6.08101 | 35.09072 | 1.41422 | .26421 | -.31303 | -.00038 | .00006  | -.00417 | .00000 |
| .155 | 53.393   | 6.28305 | 35.34154 | 1.42061 | .27192 | -.31218 | -.00062 | -.00140 | -.00770 | .00000 |
| .156 | 64.178   | 6.22775 | 35.49832 | 1.41011 | .27406 | -.31268 | -.00066 | -.00211 | -.01016 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

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F30TS402G5.3.5

(RJF232) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | 8.072 | RN/L =   | 1.090  |
| IORB =   | 6.000 | ELEVON = | -5.000 |
| BDFLAP = | .000  |          |        |

RUN NO. 232/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

F30TS402G5.3.5

(RJF233) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 10.131 RN/L = 1.090
IORB = 6.000 ELEVON = -5.000.
BDFLAP = .000
```

RUN NO. 233/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF236) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      4.036      RN/L =      1.090
STAB =     -2.000      ELEVTR =     -23.000
IORB =      6.000      ELEVON =      -5.000
BDFLAP =      .000
```

RUN NO. 236/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF237) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |        |          |         |
|----------|--------|----------|---------|
| ALPHAW = | 6.109  | RN/L =   | 1.090   |
| STAB =   | -2.000 | ELEVTR = | -23.000 |
| IORB =   | 6.000  | ELEVON = | -5.000  |
| BDFLAP = | .000   |          |         |

RUN NO. 237/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF238) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      8.123   RN/L   =      1.090
STAB   =     -2.000   ELEVTR =     -23.000
IORB   =      6.000   ELEVON =      -5.000
BDFLAP =      .000
```

RUN NO. 238/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF239) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW = 10.152 RN/L = 1.090
STAB = -2.000 ELEVTR = -23.000
IORB = 6.000 ELEVON = -5.000
BDFLAP = .000
```

RUN NO. 239/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF240) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |        |          |         |
|----------|--------|----------|---------|
| ALPHAW = | 12.091 | RN/L =   | 1.090   |
| STAB =   | -2.000 | ELEVTR = | -23.000 |
| IORB =   | 6.000  | ELEVON = | -5.000  |
| BOFLAP = | .000   |          |         |

RUN NO. 240/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF241) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |        |          |         |
|----------|--------|----------|---------|
| ALPHAW = | .204   | RN/L =   | 1.090   |
| STAB =   | -2.000 | ELEVTR = | -23.000 |
| IORB =   | 8.000  | ELEVON = | -5.000  |
| BDFLAP = | .000   |          |         |

RUN NO. 241/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF242) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |         |
|----------|--------|----------|---------|
| ALPHAW = | 4.127  | RN/L =   | 1.090   |
| STAB =   | -2.000 | ELEVTR = | -23.000 |
| IORB =   | 8.000  | ELEVON = | -5.000  |
| BDFLAP = | .000   |          |         |

RUN NO. 242/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW  | Q(PSF)   | CL      | CD     | CLM    | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|---------|--------|--------|--------|---------|---------|--------|
| .156 | 11.331   | 4.12728 | 35.43085 | 1.22222 | .21207 | .27272 | .00252 | .00670  | .01915  | .00000 |
| .156 | 12.755   | 4.11557 | 35.51339 | 1.21444 | .21611 | .26297 | .00219 | .00478  | .01525  | .00000 |
| .155 | 22.097   | 4.08433 | 35.34153 | 1.15642 | .23250 | .26903 | .00189 | .00146  | .00118  | .00000 |
| .155 | 38.168   | 4.03791 | 35.03144 | 1.10574 | .24218 | .30033 | .00196 | .00097  | -.00257 | .00000 |
| .154 | 53.120   | 4.18944 | 34.74373 | 1.10649 | .24729 | .30977 | .00148 | -.00164 | -.01525 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  | .00000 | .0C000 | .00000 | .00000  | .00000  | .00000 |

(RJF243) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHA = 6.143 RN/L = 1.090
STAB = -2.000 ELEVTR = -23.000
IORB = 8.000 ELEVON = -5.000
BDFLAP = .000
```

RUN NO. 243/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF244) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 8.137 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -23.000  
 IORB = 8.000 ELEVON = -5.000  
 BOFLAP = .000

RUN NO. 244/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW  | Q(PSF)   | CL      | CD     | CLM    | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|---------|--------|--------|--------|---------|---------|--------|
| .156 | 11.340   | 8.13665 | 35.70518 | 1.56117 | .23699 | .22043 | .00375 | .00853  | .01314  | .00000 |
| .156 | 11.758   | 8.11013 | 35.50617 | 1.55961 | .23867 | .21683 | .00375 | .00870  | .01730  | .00000 |
| .156 | 21.232   | 8.12236 | 35.46298 | 1.52803 | .26814 | .17819 | .00145 | .00299  | .00449  | .00000 |
| .155 | 37.113   | 8.21128 | 35.01313 | 1.49205 | .28551 | .23643 | .00198 | .00038  | -.00501 | .00000 |
| .154 | 52.582   | 8.19390 | 34.93181 | 1.46849 | .29163 | .26415 | .00175 | -.00224 | -.01041 | .00000 |
| .155 | 73.768   | 8.27129 | 35.13346 | 1.46186 | .29720 | .27657 | .00186 | -.00323 | -.01690 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  | .00000 | .00000 | .00000 | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF245) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 10.104 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -23.000  
 IORB = 8.000 ELEVON = -5.000  
 BOFLAP = .000

RUN NO. 245/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW   | Q(PSF)   | CL      | CD     | CLM    | CLN    | CSL     | CY      | BETA   |
|------|----------|----------|----------|---------|--------|--------|--------|---------|---------|--------|
| .156 | 11.327   | 10.10404 | 35.43757 | 1.69946 | .25280 | .19437 | .00123 | .00924  | .02262  | .00000 |
| .156 | 11.838   | 10.07752 | 35.45483 | 1.70107 | .25375 | .18760 | .00152 | .00838  | .02135  | .00000 |
| .156 | 20.737   | 10.26322 | 35.41576 | 1.70775 | .28747 | .14215 | .00132 | .00530  | .01123  | .00000 |
| .155 | 37.145   | 10.21500 | 35.14248 | 1.66541 | .31140 | .19808 | .00118 | -.00109 | -.00593 | .00000 |
| .154 | 52.561   | 10.20654 | 34.86901 | 1.64404 | .31955 | .23063 | .00214 | -.00093 | -.00919 | .00000 |
| .154 | 84.141   | 10.30160 | 34.75694 | 1.64601 | .32480 | .24728 | .00240 | -.00161 | -.01364 | .00000 |
|      | GRADIENT | .00000   | .00000   | .00000  | .00000 | .00000 | .00000 | .00000  | .00000  | .00000 |

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(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF246) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |        |          |         |
|----------|--------|----------|---------|
| ALPHAW = | 12.217 | RN/L =   | 1.090   |
| STAB =   | -2.000 | ELEVTR = | -23.000 |
| IORB =   | 8.000  | ELEVON = | -5.000  |
| BDFLAP = | .000   |          |         |

RUN NO. 246/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7 F30TS40265.3.5

(RJF247) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      .185      RN/L  =      1.090
TORB   =      8.000      ELEVON =     -5.000
BOFLAP =      .000
```

RUN NO. 247/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7

F30TS402G5.3.5

(RJF248)

( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      4.176      RN/L  =      1.090
IORB    =      8.000      ELEVON =     -5.000
BDFLAP  =      .000
```

RUN NO. 248/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7

F30TS402G5.3.5

(RJF249)

( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      6.162    RN/L   =      1.090
IORB    =      8.000    ELEVON =     -5.000
BDFLAP  =      .000
```

RUN NO. 249/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7 F30TS402G5.3.5

(RJF250) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | 8.199 | RN/L =   | 1.090  |
| IORB =   | 8.000 | ELEVON = | -5.000 |
| BDFLAP = | .000  |          |        |

RUN NO. 250/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7 F30TS402G5.3.5

(RJF251) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 10.114 | RN/L =   | 1.090  |
| IORB =   | 8.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

RUN NO. 251/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF252) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 12.218 | RN/L =   | 1.090  |
| IORB =   | 8.000  | ELEVON = | -5.000 |
| BOFLAP = | .000   |          |        |

[illegible]

(RJF253) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | .182  | RN/L =   | 1.090  |
| STAB =   | .000  | ELEVTR = | .000   |
| IORB =   | 8.000 | ELEVON = | -5.000 |
| BDFLAP = | .000  |          |        |

[illegible]



(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF254) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      4.155   RN/L   =      1.090
STAB    =      .000   ELEVTR =      .000
IORB    =      8.000   ELEVON =     -5.000
BDFLAP  =      .000
```

RUN NO. 254/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA   | Q(PSF)   | CL      | CD     | CLM     | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|---------|--------|---------|--------|---------|---------|--------|
| .155 | 11.331   | 4.15457 | 35.09452 | 1.36400 | .20932 | -.26978 | .00223 | .00576  | .01703  | .00000 |
| .155 | 13.528   | 4.13404 | 35.05255 | 1.35234 | .21648 | -.27739 | .00105 | .00480  | .01741  | .00000 |
| .156 | 22.796   | 4.10632 | 35.42931 | 1.29257 | .23200 | -.25365 | .00082 | .00073  | .00697  | .00000 |
| .156 | 38.907   | 4.17402 | 35.52277 | 1.23878 | .24495 | -.22215 | .00120 | -.00230 | -.00894 | .00000 |
| .155 | 53.849   | 4.21912 | 35.36701 | 1.23182 | .24849 | -.20707 | .00147 | -.00130 | -.01167 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  |        |         | .00000 | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF255) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | 6.113 | RN/L =   | 1.090  |
| STAB =   | .000  | ELEVTR = | .000   |
| IORB =   | 8.000 | ELEVON = | -5.000 |
| BDELAP = | .000  |          |        |

RUN NO. 255/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF256) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | 8.174 | RN/L =   | 1.090  |
| STAB =   | .000  | ELEVTR = | .000   |
| IORB =   | 8.000 | ELEVON = | -5.000 |
| BOFLAP = | .000  |          |        |

RUN NO. 256/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF257) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 10.184 | RN/L =   | 1.090  |
| STAB =   | .000   | ELEVTR = | .000   |
| IORB =   | 8.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

RUN NO. 257/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS40205.3.5

(RJF258) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

ALPHA = 12.229 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 IORB = 8.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 258/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA    | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|----------|----------|---------|--------|---------|---------|---------|---------|--------|
| .155 | 20.616   | 12.22882 | 35.06976 | 1.99461 | .32147 | -.46207 | -.00065 | .00458  | .01112  | .00000 |
| .156 | 23.953   | 12.14062 | 35.40764 | 1.99455 | .32865 | -.44093 | -.00105 | .00328  | .01883  | .00000 |
| .155 | 39.942   | 12.15782 | 35.16364 | 1.95591 | .35789 | -.36302 | .00072  | -.00018 | -.00010 | .00000 |
| .156 | 55.437   | 12.25800 | 35.48976 | 1.95243 | .36997 | -.33016 | .00168  | -.00125 | -.01051 | .00000 |
| .156 | 97.786   | 12.37818 | 35.45623 | 1.97446 | .38145 | -.31300 | .00232  | -.00262 | -.01493 | .00000 |
|      | GRADIENT | .00000   | .00000   | .00000  | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7H15.6.1F30TS40205.3.5

(RJF259) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

ALPHA = .137 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 IORB = 8.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 259/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA  | Q(PSF)   | CL     | CD     | CLM     | CLN    | CSL    | CY      | BETA   |
|------|----------|--------|----------|--------|--------|---------|--------|--------|---------|--------|
| .155 | 11.277   | .13736 | 35.13360 | .90249 | .19311 | -.01019 | .00289 | .00705 | .02143  | .00000 |
| .155 | 13.946   | .09443 | 35.24796 | .86745 | .19850 | -.01138 | .00194 | .00373 | .01444  | .00000 |
| .155 | 23.997   | .13694 | 35.16415 | .82291 | .20897 | .00219  | .00194 | .00079 | .00050  | .00000 |
| .155 | 32.866   | .12253 | 35.37636 | .79165 | .21315 | .01070  | .00145 | .00074 | -.00601 | .00000 |
|      | GRADIENT | .00000 | .00000   | .00000 | .00000 | .00000  | .00000 | .00000 | .00000  | .00000 |

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(RJF260) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 4.181  | RN/L =   | 1.090  |
| STAB =   | -4.000 | ELEVTR = | .000   |
| IORB =   | 8.000  | ELEVON = | -5.000 |
| BDCLAP = | .000   |          |        |

RUN NO. 260/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF261) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 6.166  | RN/L =   | 1.090  |
| STAB =   | -4.000 | ELEVTR = | .000   |
| IORB =   | 8.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

RUN NO. 261/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF262) \* ( 18 JUN 76) JF .

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 8.149  | RN/L =   | 1.090  |
| STAB =   | -4.000 | ELEVTR = | .000   |
| IORB =   | 8.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

RUN NO. 262/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF263) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 10.166 | RN/L =   | 1.090  |
| STAB =   | -4.000 | ELEVTR = | .000   |
| IORB =   | 8.000  | ELEVON = | -5.000 |
| BOFLAP = | .000   |          |        |

RUN NO. 263/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF264) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW = 12.163 RN/L = 1.090
STAB = -4.000 ELEVTR = .000
IORB = 8.000 ELEVON = -5.000
BDFLAP = .000
```

RUN NO. 264/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF265) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 11.591 | RN/L =   | 1.090  |
| STAB =   | -4.000 | ELEVTR = | .000   |
| IORB =   | 8.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF266) ( 18 JUN '76 )

REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW = .092 RN/L = 1.090
STAB = -2.000 ELEVTR = .000
IORB = 8.000 ELEVON = -5.000
BOFLAP = .000
```

RUN NO. 266/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF267) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      4.187   RN/L   =      1.090
STAB    =     -2.000   ELEVTR =      .000
IORB    =      8.000   ELEVON =     -5.000
BDFLAP  =      .000
```

RUN NO. 267/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF268) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 6.100  | RN/L =   | 1.090  |
| STAB =   | -2.000 | ELEVTR = | .000   |
| IORB =   | 8.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

RUN NO. 268/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF269) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 8.172  | RN/L =   | 1.090  |
| STAB =   | -2.000 | ELEVTR = | .000   |
| IORB =   | 8.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

RUN NO. 269/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



(CA-8) K3.1T57H15.6.1F30TS402G5.3.5

(RJF270) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 10.130 | RN/L =   | 1.090  |
| STAB =   | -2.000 | ELEVTR = | .000   |
| IORB =   | 8.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

RUN NO. 270/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF271) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

### PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 12.184 | RN/L =   | 1.090  |
| STAB =   | -2.000 | ELEVTR = | .000   |
| IORB =   | 8.000  | ELEVON = | -5.000 |
| BOFLAP = | .000   |          |        |

RUN NO. 271/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(CA-8) K3.1TS7H15.6.1F30TS402G5.3.5

(RJF272) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 8.000 ELEVON = -5.000  
 BDFLAP = .000 GP = 54.000

RUN NO. 272/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN    | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|--------|---------|---------|
| .155 | 4.377    | .00000 | 35.28277 | 1.21709 | .24578 | -.11991 | .00128 | -.00177 | -.00999 |
| .155 | 6.444    | .00000 | 35.12014 | 1.40555 | .26983 | -.15007 | .00135 | -.00136 | -.00905 |
| .155 | 8.482    | .00000 | 35.44106 | 1.58987 | .29864 | -.18100 | .00129 | -.00009 | -.00346 |
| .155 | 10.476   | .00000 | 35.10665 | 1.75884 | .32950 | -.21135 | .00146 | -.00170 | -.00820 |
| .155 | 12.539   | .00000 | 35.25544 | 1.93228 | .36249 | -.24666 | .00137 | -.00133 | -.00774 |
|      | GRADIENT | .00000 | .00000   | .00000  | .00000 | .00000  | .00000 | .00000  | .00000  |

(CA-8) K3.1TS7H15.6.1F30TS401G5.3.5

(RJF273) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHA = .208 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 8.000 ELEVON = -5.000  
 BDFLAP = -11.700

RUN NO. 273/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA  | Q(PSF)   | CL     | CD     | CLM     | CLN    | CSL    | CY      | BETA   |
|------|----------|--------|----------|--------|--------|---------|--------|--------|---------|--------|
| .155 | 11.278   | .20791 | 35.11574 | .93368 | .17731 | -.08256 | .00297 | .00354 | .01322  | .00000 |
| .155 | 14.419   | .15965 | 35.22980 | .90485 | .18305 | -.08720 | .00224 | .00345 | .01075  | .00000 |
| .155 | 24.463   | .11514 | 35.04625 | .84765 | .19332 | -.06170 | .00186 | .00028 | .00054  | .00000 |
| .155 | 33.369   | .17732 | 35.08268 | .83212 | .19751 | -.05234 | .00161 | .00036 | -.00578 | .00000 |
|      | GRADIENT | .00000 | .00000   | .00000 | .00000 | .00000  | .00000 | .00000 | .00000  | .00000 |

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(CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5

(RJF274) ( 18 JUN 76 )

### REFERENCE DATA

## PARAMETRIC DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

```
ALPHAW = 4.170 RN/L = 1.090
STAB = -2.000 ELEVTR = .000
IORB = 8.000 ELEVON = -5.000
BDFLAP = -11.700
```

RUN NO. 274/ 0    RN/L = .00    GRADIENT INTERVAL = -5:00/ 5.00

[illegible]

(CA-8).K3.1TS7H15.6.1F30TS40IG5.3.5

(RJF275) ( 18 JUN 76 )

### REFERENCE DATA

## PARAMETRIC DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

```
ALPHAW =      6.144      RN/L =      1.090
STAB =     -2.000      ELEVTR =      .000
TORB =      8.000      ELEVON =     -5.000
BDFLAP =    -11.700
```

RUN NO. 275/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF276) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 8.179   | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | .000   |
| IORB =   | 8.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

[illegible]

(RJF277) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 10.178  | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | .000   |
| IORB =   | 8.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

[illegible]

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(RJF278) ( 18 JUN 76 )

### PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 12.184  | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | .000   |
| TORB =   | 8.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

[illegible]

(RJF279) ( 18 JUN 76 )

### PARAMETRIC DATA

```
ALPHAW = .160 RN/L = 1.090
STAB = -4.000 ELEVTR = .000
IORB = 8.000 ELEVON = +5.000
BDFLAP = -11.700
```

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5

(RJF280) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 4.141   | RN/L =   | 1.090  |
| STAB =   | -4.000  | ELEVTR = | .000   |
| IORB =   | 8.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 280/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5

(RJF281) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 6.199   | RN/L =   | 1.090  |
| STAB =   | -4.000  | ELEVTR = | .000   |
| IORB =   | 8.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 281/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS401G5.3.5

(RJF282) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 8.128   | RN/L =   | 1.090  |
| STAB =   | -4.000  | ELEVTR = | .000   |
| IORB =   | 8.000   | ELEVON = | -5.000 |
| BOFLAP = | -11.700 |          |        |

RUN NO. 282/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5

(RJF283) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

### PARAMETRIC DATA

```
ALPHAW = 10.137   RN/L = 1.090
STAB = -4.000     ELEVTR = .000
IORB = 8.000      ELEVON = -5.000
BOFLAP = -11.700
```

RUN NO. 283/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF284) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 12.159  | RN/L =   | 1.090  |
| STAB =   | -4.000  | ELEVTR = | .000   |
| IORB =   | 8.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

[illegible]

(RJF285) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | .120    | RN/L =   | 1.090  |
| STAB =   | .000    | ELEVTR = | .000   |
| IORB =   | 8.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

[illegible]



(RJF286) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      4.113    RN/L  =      1.090
STAB   =      .000    ELEVTR =      .000
IORB   =      8.000    ELEVEN =     -5.000
BDFLAP =     -11.700
```

RUN NO. 286/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF287) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 6.125   | RN/L =   | 1.090  |
| STAB =   | .000    | ELEVTR = | .000   |
| IORB =   | 8.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 287/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-B) K3.1T57H15.6.1F30T5401G5.3.5

(RJF288) ( 18 JUN 75 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 8.199   | RN/L =   | 1.090  |
| STAB =   | .000    | ELEVTR = | .000   |
| IORB =   | 8.000   | ELEVON = | -5.000 |
| BDCLAP = | -11.700 |          |        |

RUN NO. 288/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS40135.3.5

(RJF289) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW = 10.130 RN/L = 1.090
STAB = .000 ELEVTR = .000
IORB = 8.000 ELEVON = -5.000
BDFLAP = -11.700
```

RUN NO. 289/ 0      RN/L' = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F30TS40IG5.3.5

(RJF290) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

ALPHAW = 12.171 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 IORB = 8.000 ELEVON = -5.000  
 BOFLAP = -11.700

RUN NO. 290/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|----------|----------|---------|--------|---------|---------|---------|---------|--------|
| .154 | 20.609   | 12.17091 | 34.78718 | 1.99964 | .30503 | -.47090 | -.00291 | .00785  | .03063  | .00000 |
| .155 | 23.959   | 12.16184 | 35.15338 | 1.99334 | .31637 | -.44853 | -.00008 | .00465  | .01393  | .00000 |
| .154 | 39.964   | 12.18330 | 34.93000 | 1.96834 | .34396 | -.36490 | .00121  | -.00099 | -.00506 | .00000 |
| .155 | 55.447   | 12.20362 | 35.33237 | 1.94420 | .35781 | -.32790 | .00113  | -.00257 | -.00771 | .00000 |
| .155 | 97.797   | 12.36843 | 35.34906 | 1.97316 | .36862 | -.31299 | .00213  | -.00220 | -.01237 | .00000 |
|      | GRADIENT | .00000   | .00000   | .00000  | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7

F30TS40IG5.3.5

(RJF291) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

ALPHAW = .231 RN/L = 1.090  
 IORB = 8.000 ELEVON = -5.000  
 BOFLAP = -11.700

RUN NO. 291/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW | Q(PSF)   | CL     | CD     | CLM     | CLN    | CSL    | CY      | BETA   |
|------|----------|--------|----------|--------|--------|---------|--------|--------|---------|--------|
| .156 | 11.279   | .23101 | 35.52674 | .99569 | .17682 | -.30220 | .00324 | .00537 | .01578  | .00000 |
| .155 | 15.205   | .18149 | 35.27387 | .97130 | .18344 | -.31343 | .00239 | .00381 | .01170  | .00000 |
| .155 | 25.330   | .12886 | 35.10366 | .92418 | .19327 | -.32448 | .00173 | .00144 | .00500  | .00000 |
| .155 | 34.258   | .16487 | 35.00068 | .90587 | .19793 | -.32870 | .00066 | .00172 | -.00251 | .00000 |
|      | GRADIENT | .00000 | .00000   | .00000 | .00000 | .00000  | .00000 | .00000 | .00000  | .00000 |

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(RJF292) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 4.088 RN/L = 1.090
IORB = 8.000 ELEVON = -5.000
BOFLAP = -11.700
```

[illegible]

(RJF293) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 6.232   | RN/L =   | 1.090  |
| IORB =   | 8.000   | ELEVON = | -5.000 |
| BOFLAP = | -11.700 |          |        |

[illegible]

(CA-8) K3.1TS7

F30TS401G5.3.5

(RJF294) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 8.170   | RN/L =   | 1.090  |
| IORB =   | 8.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 294/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7

F30TS401G5.3.5

(RJF295) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|           |         |          |        |
|-----------|---------|----------|--------|
| ALPHAW' = | 10.141  | RN/L =   | 1.090  |
| IORB =    | 8.000   | ELEVON = | -5.000 |
| BDFLAP =  | -11.700 |          |        |

RUN NO. 295/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

## CA-8 - FORCE SOURCE DATA TABULATION

(CA-8) K3.1TS7

F30TS401G5.3.5

(RJF296) ( 18 JUN 76 )

## REFERENCE DATA

```
SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400
```

### PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 12.141  | RN/L =   | 1.090  |
| IORB =   | 8.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 296/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1T57H15.6.1F30TS40IG5.3.5

(RJF297) ( 18 JUN 76 )

## REFERENCE DATA

```
SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400
```

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | .263    | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| IORB =   | 8.000   | ELEVON = | -5.000  |
| BDFLAP = | -11.700 |          |         |

RUN NO. 297/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F3DTS401G5.3.5

(RJF298) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | 4.047   | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| IORB =   | 8.000   | ELEVON = | -5.000  |
| BDFLAP = | -11.700 |          |         |

RUN NO. 298/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1T57H15.6.1F30TS40IG5.3.5

(RJF299) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      6.135    RN/L  =      1.090
STAB   =     -2.000    ELEVTR =     -23.000
IORB   =      8.000    ELEVON =      -5.000
BDFLAP =     -11.700
```

RUN NO. 299/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

DATE 06 JUL 76

## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3.1TS7H15.6.1F30TS401G5.3.5

(RJF300) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 8.209 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -23.000  
 IORB = 8.000 ELEVON = -5.000  
 BDFLAP = -11.700

RUN NO. 300/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW  | Q(PSF)   | CL      | CD     | CLM    | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|---------|--------|--------|--------|---------|---------|--------|
| .155 | 11.340   | 8.20941 | 35.24102 | 1.57467 | .22035 | .21607 | .00328 | .00622  | .01189  | .00000 |
| .155 | 12.216   | 8.18326 | 35.18249 | 1.57059 | .22473 | .20636 | .00391 | .00884  | .01298  | .00000 |
| .154 | 22.133   | 8.16419 | 34.90780 | 1.54379 | .25366 | .18796 | .00068 | .00158  | .00425  | .00000 |
| .154 | 37.619   | 8.15327 | 34.54843 | 1.49090 | .27062 | .23953 | .00212 | .00108  | -.00779 | .00000 |
| .154 | 53.332   | 8.19800 | 34.47594 | 1.48244 | .27942 | .26019 | .00192 | -.00129 | -.00887 | .00000 |
| .155 | 74.372   | 8.13760 | 35.08923 | 1.46741 | .28157 | .27718 | .00198 | -.00252 | -.01749 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  | .00000 | .00000 | .00000 | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7H15.6.1F30TS401G5.3.5

(RJF301) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 10.143 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -23.000  
 IORB = 8.000 ELEVON = -5.000  
 BDFLAP = -11.700

RUN NO. 301/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW   | Q(PSF)   | CL      | CD     | CLM    | CLN    | CSL     | CY      | BETA   |
|------|----------|----------|----------|---------|--------|--------|--------|---------|---------|--------|
| .155 | 11.327   | 10.14258 | 35.05235 | 1.71033 | .23684 | .17914 | .00133 | .00926  | .01934  | .00000 |
| .155 | 13.019   | 10.11915 | 34.94515 | 1.71321 | .24492 | .16134 | .00152 | .00706  | .01545  | .00000 |
| .155 | 20.810   | 10.11666 | 35.15176 | 1.71314 | .27249 | .13453 | .00105 | .00338  | .00879  | .00000 |
| .155 | 37.598   | 10.18925 | 34.99801 | 1.67709 | .29831 | .19380 | .00161 | -.00040 | -.01058 | .00000 |
| .154 | 52.702   | 10.16122 | 34.82077 | 1.65073 | .30971 | .22075 | .00175 | -.00205 | -.01467 | .00000 |
| .154 | 84.477   | 10.28636 | 34.82469 | 1.65711 | .31485 | .23716 | .00216 | -.00235 | -.01781 | .00000 |
|      | GRADIENT | .00000   | .00000   | .00000  | .00000 | .00000 | .00000 | .00000  | .00000  | .00000 |

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(RJF302) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | 12.252  | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| IORB =   | 8.000   | ELEVON = | -5.000  |
| BDFLAP = | -11.700 |          |         |

[illegible]

(RJF303) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = .255 RN/L = 1.090
STAB = -2.000 ELEVTR = -23.000
IORB = 8.000 ELEVON = -5.000
BDFLAP = .000
```

[illegible]

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(RJF304) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |         |
|----------|--------|----------|---------|
| ALPHAW = | 4.075  | RN/L =   | 1.090   |
| STAB =   | -2.000 | ELEVTR = | -23.000 |
| IORB =   | 8.000  | ELEVON = | -5.000  |
| ROFLAP = | .000   |          |         |

| MACH | GP       | ALPHAW  | Q(PSF)   | CL     | CD     | CLM    | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|--------|--------|--------|--------|---------|---------|--------|
| .155 | 11.331   | 4.07501 | 35.27487 | .44462 | .11357 | .58115 | .00252 | .00266  | .01357  | .00000 |
| .155 | 13.172   | 4.05471 | 35.23167 | .42248 | .11422 | .57499 | .00259 | .00399  | .01607  | .00000 |
| .155 | 22.528   | 4.00907 | 35.08491 | .36209 | .11618 | .56428 | .00234 | .00037  | .00162  | .00000 |
| .154 | 38.530   | 4.03537 | 34.90066 | .34073 | .11704 | .56321 | .00248 | -.00003 | -.01018 | .00000 |
| .155 | 53.603   | 4.09538 | 35.00459 | .33622 | .11775 | .56524 | .00235 | .00032  | -.01316 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000 | .00000 | .00000 | .00030 | .00000  | .00000  | .00000 |

(RJF305) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |         |
|----------|--------|----------|---------|
| ALPHAW = | 6.060  | RN/L =   | 1.090   |
| STAB =   | -2.000 | ELEVTR = | -23.000 |
| IORB =   | 8.000  | ELEVON = | -5.000  |
| BDFLAP = | .000   |          |         |

[illegible]

CA-8 - FORCE SOURCE DATA TABULATION

(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF306) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |         |
|----------|--------|----------|---------|
| ALPHAW = | 8.107  | RN/L =   | 1.090   |
| STAB =   | -2.000 | ELEVTR = | -23.000 |
| ICRB =   | 8.000  | ELEVON = | -5.000  |
| BDFLAP = | .000   |          |         |

RUN NO. 306/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA   | Q(PSF)   | CL     | CD     | CLM    | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|--------|--------|--------|--------|---------|---------|--------|
| .155 | 11.340   | 8.10720 | 35.24689 | .88187 | .13340 | .49417 | .00147 | .00549  | .02470  | .00000 |
| .155 | 12.034   | 8.08247 | 35.15388 | .86981 | .13284 | .48875 | .00186 | .00522  | .02047  | .00000 |
| .155 | 21.853   | 8.06709 | 34.94031 | .78005 | .13489 | .48126 | .00258 | .00283  | .00761  | .00000 |
| .154 | 37.500   | 8.22771 | 34.78745 | .74950 | .13779 | .48849 | .00243 | -.00094 | -.00879 | .00000 |
| .155 | 53.137   | 8.20339 | 35.15024 | .73711 | .13794 | .49481 | .00293 | .00096  | -.00790 | .00000 |
| .155 | 74.245   | 8.10863 | 35.28607 | .71917 | .13803 | .50441 | .00296 | -.00053 | -.01175 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000 | .00000 | .00000 | .00290 | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF307) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 10.128 RN/L = 1.090
STAB = -2.000 ELFVTR = -23.000
IORB = 8.000 ELEVN = -5.000
BDFLAP = .000
```

RUN NO. 307/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

CA-8 - FORCE SOURCE DATA TABULATION

(RJF308) ( 18 JUN 76 )

(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

## PARAMETRIC DATA

|          |        |          |         |
|----------|--------|----------|---------|
| ALPHAW = | 12.145 | RN/L =   | 1.090   |
| STAB =   | -2.000 | ELEVTR = | -23.000 |
| IORB =   | 8.000  | ELEVON = | -5.000  |
| BDFLAP = | .000   |          |         |

RUN NO. 308/ 0 · RN/L = .00 GRADIENT INTERVAL = -5.00' 5.00

[illegible]

(CA-8) K3.1TS7 F10TS402G5.3.5

(RJF309) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = .211 RN/L = 1.090
IORB = 8.000 ELEVON = -5.000
BDFLAP = .000
```

RUN NO. 309/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW | Q(PSF)   | CL     | CD     | CLM     | CLN    | CSL     | CY      | BETA   |
|------|----------|--------|----------|--------|--------|---------|--------|---------|---------|--------|
| .155 | 11.278   | .21050 | 34.97256 | .16714 | .12309 | -.03149 | .03227 | .00286  | .02146  | .00000 |
| .155 | 15.940   | .15717 | 35.12248 | .14893 | .12318 | -.03978 | .03180 | .00115  | .01198  | .00000 |
| .155 | 25.541   | .11646 | 34.98936 | .14169 | .12316 | -.04621 | .03167 | .00213  | .00828  | .00000 |
| .155 | 34.665   | .03524 | 34.98624 | .12061 | .12481 | -.04975 | .03067 | -.00013 | -.00370 | .00000 |
|      | GRADIENT | .00000 | .00000   | .00000 | .00000 |         | .03000 | .00000  | .00000  | .00000 |

(RJF310) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | 4.011 | RN/L =   | 1.090  |
| IORB =   | 8.000 | ELEVON = | -5.000 |
| BDFLAP = | .000  |          |        |

RUN NO. 310/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF311) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

### PARAMETRIC DATA

```
ALPHAW = 6.211 RN/L = 1.090
IORB = 8.000 ELEVON = -5.000
BDFLAP = .000
```

RUN NO. 311/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF312) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | 8.089 | RN/L =   | 1.090  |
| IORB =   | 8.000 | ELEVON = | -5.000 |
| BOFLAP = | .000  |          |        |

[illegible]

(RJF313) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 10.137 | RN/L =   | 1.090  |
| IORB =   | 8.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

[illegible]

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(RJF314) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 12.208 RN/L = 1.090
IORB = 8.000 ELEVON = -5.000
RDELAP = .000
```

[illegible]

(RJF315) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | .206   | RN/L =   | 1.090  |
| STAB =   | -2.000 | ELEVTR = | .000   |
| IORB =   | 8.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

[illegible]

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(RJF316) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      4.136    RN/L   =      1.090
STAB   =     -2.000    ELEVTR =      .000
IORB   =      8.000    ELEVON =     -5.000
BDCLAP =      .000
```

[illegible]

(RJF317) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      6.112   RN/L   =      1.090
STAB   =     -2.000   ELEVTR =      .000
IORB   =      8.000   ELEVON =     -5.000
BDFLAP =      .000
```

[illegible]



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(RJF318) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      8.230    RN/L   =      1.090
STAB    =     -2.000    ELEVTR =      .000
IORB    =      8.000    ELEVON =     -5.000
BDFLAP  =      .000
```

[illegible]

(RJF319) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 10.085 | RN/L =   | 1.090  |
| STAB =   | -2.000 | ELEVTR = | .000   |
| IORB =   | 8.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          | .      |

[illegible]



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(RJF322) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | 4.024 | RN/L' =  | 1.090  |
| STAB =   | .000  | ELEVTR = | .000   |
| IORB =   | 8.000 | ELEVON = | -5.000 |
| BDFLAP = | .000  |          |        |

[illegible]

(RJF323) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | 6.135 | RN/L =   | 1.090  |
| STAB =   | .000  | ELEVTR = | .000   |
| IORB =   | 8.000 | ELEVON = | -5.000 |
| BDFLAP = | .000  |          |        |

[illegible]

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(RJF324) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | 8.152 | RN/L =   | 1.090  |
| STAB =   | .000  | ELEVTR = | .000   |
| IORB =   | 8.000 | ELEVON = | -5.000 |
| BDFLAP = | .000  |          |        |

[illegible]

(RJF325) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 10.053 | PN/L =   | 1.090  |
| STAB =   | .000   | ELEVTR = | .000   |
| IORB =   | 8.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

[illegible]

(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF326) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 12.123 | RN/L =   | 1.090  |
| STAB =   | .000   | ELEVTR = | .000   |
| IORB =   | 8.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

RUN NO. 326/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF327) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF. = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF. = 327.8000 IN.       YMRP = .0000 IN.YC
BREF. = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | .195  | RN/L =   | 1.090  |
| STAB =   | 2.000 | ELEVTR = | .000   |
| IORB =   | 8.000 | ELEVON = | -5.000 |
| BDFLAP = | .000  |          |        |

RUN NO. 327/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF328) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 3.963 RN/L = 1.090  
 STAB = 2.000 ELEVTR = .000  
 IORB = 8.000 ELEVON = -5.000  
 BOFLAP = .000

RUN NO. 328/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW  | Q(PSF)   | CL     | CD     | CLM     | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|--------|--------|---------|--------|---------|---------|--------|
| .155 | 11.330   | 3.96339 | 35.16900 | .59188 | .11473 | -.02741 | .00183 | .00376  | .01827  | .00000 |
| .155 | 13.743   | 4.12045 | 35.04800 | .58402 | .11654 | -.03562 | .00187 | .00343  | .01301  | .00000 |
| .155 | 22.427   | 4.08957 | 35.06704 | .53398 | .11855 | -.03676 | .00178 | .00146  | .00656  | .00000 |
| .155 | 38.597   | 4.20561 | 35.08124 | .51806 | .12048 | -.03225 | .00203 | .00076  | -.00522 | .00000 |
| .155 | 53.560   | 4.11782 | 35.16998 | .49991 | .12070 | -.02942 | .00247 | -.00012 | -.01088 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000 | .00000 | .00000  | .00000 | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF329) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 6.133 RN/L = 1.090  
 STAB = 2.000 ELEVTR = .000  
 IORB = 8.000 ELEVON = -5.000  
 BOFLAP = .000

RUN NO. 329/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW  | Q(PSF)   | CL     | CD     | CLM     | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|--------|--------|---------|--------|---------|---------|--------|
| .155 | 11.341   | 6.13334 | 35.11193 | .84562 | .12437 | -.10206 | .00089 | .00515  | .02726  | .00000 |
| .155 | 13.515   | 6.09247 | 35.03648 | .80884 | .12597 | -.09639 | .00132 | .00358  | .01601  | .00000 |
| .155 | 22.604   | 6.18878 | 35.08343 | .76107 | .12898 | -.08766 | .00201 | .00125  | .00860  | .00000 |
| .155 | 38.382   | 6.14914 | 35.14523 | .70608 | .13140 | -.07192 | .00252 | -.00143 | -.01060 | .00000 |
| .155 | 54.285   | 6.12481 | 35.17659 | .70205 | .13133 | -.06575 | .00277 | -.00049 | -.00811 | .00000 |
| .155 | 64.677   | 6.20579 | 35.32099 | .69766 | .13249 | -.06208 | .00286 | -.00106 | -.01035 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000 | .00000 | .00000  | .00000 | .00000  | .00000  | .00000 |

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(RJF330) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      8.150    RN/L =      1.090
STAS =      2.000    ELEVTR =      .000
IORB =      8.000    ELEVEN =     -5.000
BDFLAP =      .000
```

[illegible]

(RJF331) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 10.074 RN/L = 1.090
STAB = 2.000 ELEVTR = .000
IORB = 8.000 ELEVON = -5.000
RDELAP = .000
```

[illegible]

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(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF332) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW = 12.218 RN/L = 1.090
STAB = 2.000 ELEVTR = .000
IORB = 8.000 ELEVON = -5.000
BDFLAP = .000
```

RUN NO. 332/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW   | Q (PSF)  | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|----------|----------|---------|--------|---------|---------|---------|---------|--------|
| .155 | 20.292   | 12.21832 | 35.13880 | 1.38794 | .20900 | -.30510 | -.00061 | .00390  | .02037  | .00000 |
| .155 | 25.622   | 12.19738 | 35.08426 | 1.35729 | .20854 | -.28136 | -.00056 | .00216  | .01529  | .00000 |
| .155 | 39.733   | 12.18902 | 34.97047 | 1.29595 | .21276 | -.21434 | .00120  | -.00092 | -.00394 | .00000 |
| .155 | 55.061   | 12.20133 | 35.30307 | 1.28821 | .21375 | -.19359 | .00244  | -.00027 | -.00862 | .00000 |
| .155 | 97.395   | 12.25684 | 35.04514 | 1.28958 | .21648 | -.18252 | .00282  | -.00070 | -.01410 | .00000 |
|      | GRADIENT | .00000   | .00000   | -.00000 | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF333) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | .240   | RN/L =   | 1.090  |
| STAB =   | -2.000 | ELEVTR = | .000   |
| IORB =   | 6.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

RUN NO. 333/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



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(RJF334) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 4.003  | RN/L =   | 1.090  |
| STAB =   | -2.000 | ELEVTR = | .000   |
| IORB =   | 6.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

RUN NO. 334/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF335) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 6.127  | RN/L =   | 1.090  |
| STAB =   | -2.000 | ELEVTR = | .000   |
| IORB =   | 6.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

RUN NO. 335/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF336) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      8.113    RN/L   =      1.090
STAB   =     -2.000    ELEVTR =      .000
IORB   =      6.000    ELEVON =     -5.000
BDFLAP =      .000
```

[illegible]

(RJF337) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 10.121 | RN/L =   | 1.090  |
| STAB =   | -2.000 | ELEVTR = | .000   |
| IORB =   | 6.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

[illegible]

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(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF338) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 12.123 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 338/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW   | Q(PSF)   | CL      | CD     | CLM     | CLN    | CSL     | CY      | BETA   |
|------|----------|----------|----------|---------|--------|---------|--------|---------|---------|--------|
| .156 | 20.258   | 12.12296 | 35.44764 | 1.31273 | .18393 | -.17458 | .00055 | .00391  | .01972  | .00000 |
| .155 | 23.614   | 12.15787 | 35.31961 | 1.28732 | .18626 | -.15205 | .00010 | .00283  | .01406  | .00000 |
| .155 | 39.637   | 12.15034 | 35.16331 | 1.22777 | .18959 | -.08779 | .00115 | .00036  | -.00072 | .00000 |
| .155 | 55.008   | 12.23875 | 35.10592 | 1.22318 | .19182 | -.07047 | .00165 | .00036  | -.00493 | .00000 |
| .155 | 97.366   | 12.26152 | 35.07855 | 1.21399 | .19435 | -.05518 | .00188 | -.00141 | -.00774 | .00000 |
|      | GRADIENT | .00000   | .00000   | .00000  | .00000 | .00000  | .00000 | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF339) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = .132 RN/L = 1.090  
 STAB = .000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 339/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW | Q(PSF)   | CL     | CD     | CLM    | CLN    | CSL     | CY      | BETA   |
|------|----------|--------|----------|--------|--------|--------|--------|---------|---------|--------|
| .155 | 11.277   | .13212 | 35.30294 | .08283 | .12288 | .11866 | .00246 | .00423  | .02506  | .00000 |
| .155 | 14.565   | .08803 | 35.21789 | .07097 | .12327 | .11067 | .00187 | .00077  | .01914  | .00000 |
| .155 | 24.812   | .10472 | 35.04601 | .06223 | .12346 | .09959 | .00186 | -.00014 | .00208  | .00000 |
| .155 | 33.755   | .17438 | 35.00321 | .06198 | .12199 | .09481 | .00151 | .00038  | -.00396 | .00000 |
|      | GRADIENT | .00000 | .00000   | .00000 | .00000 | .00000 | .00000 | .00000  | .00000  | .00000 |

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(RJF340) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | 4.180 | RN/L =   | 1.090  |
| STAB =   | .000  | ELEVTR = | .000   |
| IORB =   | 6.000 | ELEVON = | -5.000 |
| BDFLAP = | .000  |          |        |

[illegible]

(RJF341) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 6.149 RN/L = 1.090
STAB = .000 ELEVTR = .000
IORB = 6.000 TLEVON = -5.000
BDFLAP = .000
```

[illegible]



(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF344) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW = 12.139 RN/L = 1.090
STAB = .000 ELEVTR = .000
IORB = 6.000 ELEVON = -5.000
BDFLAP = .000
```

[illegible]

(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF345) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | .142  | RN/L =   | 1.090  |
| STAB =   | 2.000 | ELEVTR = | .000   |
| IORB =   | 6.000 | ELEVON = | -5.000 |
| BDFLAP = | .000  |          |        |

[illegible]

(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF346) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | 4.102 | RN/L =   | 1.090  |
| STAB =   | 2.000 | ELEVTR = | .000   |
| IORB =   | 6.000 | ELEVON = | -5.000 |
| BDFLAP = | .000  |          |        |

RUN NO. 346/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF347) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      6.145  RN/L  =      1.090
STAB   =      2.000  ELEVTR =      .000
IORB   =      6.000  ELEVON =     -5.000
BDELAP =      .000
```

RUN NO. 347/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF348) ( 18 JUN 76 )

### PARAMETRIC DATA

```
ALPHAW =      8.104  RN/L   =      1.090
STAB    =      2.000  ELEVTR =      .000
TORB    =      6.000  ELEVON =     -5.000
BDFLAP  =      .000
```

[illegible]

(RJF349) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 10.197 | RN/L =   | 1.090  |
| STAB =   | 2.000  | ELEVTR = | .000   |
| IORB =   | 6.000  | ELEVON = | -5.000 |
| BDFLAP = | .000   |          |        |

[illegible]



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(RJF350) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |        |
|----------|--------|----------|--------|
| ALPHAW = | 12.193 | RN/L =   | 1.090  |
| STAB =   | 2.000  | ELEVTR = | .000   |
| IORB =   | 6.000  | ELEVON = | -5.000 |
| ROFLAP = | .000   |          |        |

[illegible]

(RJF351) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      .239      RN/L  =      1.090
TORB   =      6.000      ELEVON =     -5.000
BDFLAP =      .000
```

[illegible]

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(RJF352) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 4.108 RN/L = 1.090
IORB = 6.000 ELEVON = -5.000
BDFLAP = .000
```

[illegible]

(RJF353) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      6.177      RN/L  =      1.090
IORB    =      6.000      ELEVON =     -5.000
BDFLAP  =      .000
```

[illegible]

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(CA-8) K3.1TS7

F10TS40205.3.5

(RJF354) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHA = 8.175 RN/L = 1.090  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 354/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|---------|----------|---------|--------|---------|---------|---------|---------|--------|
| .154 | 11.340   | 8.17491 | 34.82793 | 1.00025 | .12590 | -.01061 | .00184  | .00726  | .02985  | .00000 |
| .155 | 13.841   | 8.14332 | 35.14114 | .97581  | .12686 | -.01994 | .00128  | .00463  | .02100  | .00000 |
| .155 | 23.141   | 8.10524 | 35.10707 | .88874  | .13118 | -.04346 | .00084  | .00301  | .01032  | .00000 |
| .155 | 39.064   | 8.20595 | 35.17678 | .86353  | .13546 | -.04656 | .00033  | .00226  | -.00166 | .00000 |
| .155 | 54.512   | 8.17970 | 35.22755 | .84901  | .13608 | -.04663 | .00029  | .00124  | -.00223 | .00000 |
| .155 | 75.653   | 8.20620 | 35.13621 | .84471  | .13733 | -.04332 | -.00033 | -.00060 | -.00740 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7

F10TS40205.3.5

(RJF355) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHA = 10.215 RN/L = 1.090  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 355/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA    | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|----------|----------|---------|--------|---------|---------|---------|---------|--------|
| .155 | 11.326   | 10.21554 | 35.09656 | 1.18131 | .14489 | -.00831 | .00117  | .00751  | .02724  | .00000 |
| .155 | 14.746   | 10.17320 | 35.16715 | 1.14220 | .14724 | -.02294 | .00116  | .00682  | .02149  | .00000 |
| .155 | 22.585   | 10.14945 | 35.02009 | 1.08566 | .15200 | -.03497 | .00072  | .00375  | .01040  | .00000 |
| .154 | 38.903   | 10.12327 | 34.77791 | 1.03050 | .15704 | -.04278 | -.00008 | .00005  | -.00118 | .00000 |
| .154 | 54.446   | 10.25796 | 34.68373 | 1.02439 | .16012 | -.03924 | -.00010 | -.00021 | -.00448 | .00000 |
| .155 | 86.043   | 10.25964 | 35.17687 | 1.03423 | .16157 | -.03947 | -.00032 | -.00101 | -.00675 | .00000 |
|      | GRADIENT | .00000   | .00000   | .00000  | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

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 ORIGINAL PAGE IS POOR

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(CA-8) K3.1TS7

F10TS402G5.3.5

(RJF356) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 12.152  RN/L = 1.090
IORB = 6.000  ELEVON = -5.000
BDFLAP = .000
```

RUN NO. 356/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF357) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |         |
|----------|--------|----------|---------|
| ALPHAW = | .223   | RN/L =   | 1.090   |
| STAB =   | -2.000 | ELEVTR = | -23.000 |
| IORB =   | 6.000  | ELEVON = | -5.000  |
| BDFLAP = | .000   |          |         |

RUN NO. 357/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF358) ( .18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |         |
|----------|--------|----------|---------|
| ALPHAW = | 3.987  | RN/L =   | 1.090   |
| STAB =   | -2.000 | ELEVTR = | -23.000 |
| IORB =   | 6.000  | ELEVON = | -5.000  |
| BOFLAP = | .000   |          |         |

[illegible]

(RJF359) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |         |
|----------|--------|----------|---------|
| ALPHAW = | 6.129  | RN/L =   | 1.090   |
| STAB =   | -2.000 | ELEVTR = | -23.000 |
| TORB =   | 6.000  | ELEVON = | -5.000  |
| BOFLAP = | .000   |          |         |

[illegible]

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(RJF360) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |        |          |         |
|----------|--------|----------|---------|
| ALPHAW = | 8.220  | RN/L =   | 1.090   |
| STAB =   | -2.000 | ELEVTR = | -23.000 |
| IORB =   | 6.000  | ELEVON = | -5.000  |
| BDFLAP = | .000   |          |         |

[illegible]

(RJF361) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 10.205 RN/L = 1.090
STAB = -2.000 ELEVTR = -23.000
IORB = 6.000 ELEVON = -5.000
BOFLAP = .000
```

[illegible]

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(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF362) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 12.137 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -23.000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 362/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW   | Q(PSF)   | CL      | CD     | CLM    | CLN     | CSL     | CY      | BETA   |
|------|----------|----------|----------|---------|--------|--------|---------|---------|---------|--------|
| .155 | 20.183   | 12.13695 | 35.28359 | 1.17578 | .17443 | .39570 | -.00050 | .00445  | .02058  | .00000 |
| .155 | 24.023   | 12.10808 | 35.23976 | 1.13913 | .17506 | .41155 | .00028  | .00217  | .00918  | .00000 |
| .155 | 39.500   | 12.14851 | 35.01169 | 1.09038 | .17974 | .44137 | .00132  | .00111  | -.00395 | .00000 |
| .154 | 55.045   | 12.14895 | 34.84281 | 1.07434 | .18006 | .45665 | .00158  | -.00072 | -.01323 | .00000 |
| .155 | 97.254   | 12.25170 | 35.19672 | 1.08095 | .18269 | .46544 | .00227  | -.00024 | -.01269 | .00000 |
|      | GRADIENT | .00000   | .00000   | .00000  | .00000 | .00000 | .00000  | .00000  | .00000  | .00000 |

(CA-8) K2.1TS7H15.6.1F10TS401G5.3.5

(RJF364) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700 GP = 44.000

RUN NO. 364/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL     | CD      | CLM     | CLN    | CSL     | CY      |
|------|----------|--------|----------|--------|---------|---------|--------|---------|---------|
| .155 | 2.229    | .00000 | 35.22539 | .25072 | .09855  | .10184  | .00072 | -.00036 | -.01398 |
| .155 | 3.220    | .00000 | 35.02698 | .35426 | .09732  | .07774  | .00098 | .00044  | -.01036 |
| .155 | 4.278    | .00000 | 35.04401 | .45722 | .09836  | .05980  | .00076 | -.00089 | -.01394 |
| .155 | 6.264    | .00000 | 35.37362 | .64856 | .10657  | .02110  | .00111 | .00006  | -.01202 |
| .155 | 8.362    | .00000 | 35.12715 | .86138 | .12117  | -.03587 | .00092 | -.00149 | -.00928 |
|      | GRADIENT | .00000 | -.08735  | .10074 | -.00008 | -.02048 | .00002 | -.00027 | -.00002 |

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(CA-8) K2.1TS7H15.6.1F10TS401G5.3.5

(RJF365) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700 GP = 54.000

RUN NO. 365/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN    | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|--------|---------|---------|
| .155 | 4.268    | .00000 | 35.23638 | .45126  | .09891 | .05672  | .00059 | -.00087 | -.01081 |
| .155 | 6.229    | .00000 | 35.04847 | .64694  | .10586 | .01804  | .00119 | .00111  | -.00860 |
| .155 | 8.229    | .00000 | 35.13105 | .84482  | .12033 | -.03032 | .00105 | -.00009 | -.00986 |
| .155 | 10.329   | .00000 | 35.26875 | 1.03621 | .14364 | -.07502 | .00087 | -.00060 | -.01077 |
| .155 | 12.355   | .00000 | 35.35460 | 1.22066 | .17166 | -.12266 | .00114 | -.00108 | -.01169 |
|      | GRADIENT | .00000 | .00000   | .00000  | .00000 | .00000  | .00000 | .00000  | .00000  |

(CA-8) K2.1TS7H15.6.1F10TS401G5.3.5

(RJF366) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.390  
 STAB = -2.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700 GP = 44.000

RUN NO. 366/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL     | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|--------|---------|---------|---------|---------|---------|
| .186 | 2.177    | .00000 | 50.24765 | .25864 | .10141  | .09499  | .00117  | .00254  | -.00645 |
| .186 | 3.221    | .00000 | 50.47579 | .36604 | .10034  | .07581  | .00084  | .00031  | -.01072 |
| .186 | 4.258    | .00000 | 50.26923 | .46962 | .10120  | .05611  | .00099  | .00059  | -.00882 |
| .186 | 6.282    | .00000 | 49.81036 | .66479 | .10823  | .01216  | .00120  | .00108  | -.00590 |
| .186 | 8.311    | .00000 | 50.13392 | .86460 | .12249  | -.03912 | .00090  | -.00045 | -.00585 |
|      | GRADIENT | .00000 | .01060   | .10139 | -.00010 | -.01868 | -.00009 | -.00094 | -.00114 |



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(CA-8) K2.1TS7H15.6.1F10TS401G5.3.5

(RJF367) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.390  
 STAB = -2.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BOFLAP = -11.700 GP = .54.000

RUN NO. 367/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN    | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|--------|---------|---------|
| .186 | 4.252    | .00000 | 50.25506 | .46774  | .10073 | .05934  | .00164 | .00264  | -.00567 |
| .186 | 6.288    | .00000 | 50.39586 | .66630  | .10772 | .01685  | .00144 | .00127  | -.00709 |
| .186 | 8.348    | .00000 | 50.20541 | .87775  | .12217 | -.03513 | .00144 | .00150  | -.00486 |
| .186 | 10.322   | .00000 | 50.26782 | 1.05871 | .14506 | -.07760 | .00120 | -.00122 | -.01125 |
| .186 | 12.438   | .00000 | 50.22425 | 1.24543 | .17151 | -.13307 | .00118 | -.00041 | -.00961 |
|      | GRADIENT | .00000 | .00000   | .00000  | .00000 | .00000  | .00000 | .00000  | .00000  |

(CA-8) K2.1TS7H15.6.1F10TS401G5.3.5

(RJF368) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.430  
 STAB = -2.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BOFLAP = -11.700 GP = .44.000

RUN NO. 368/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL     | CD      | CLM     | CLN    | CSL     | CY      |
|------|----------|--------|----------|--------|---------|---------|--------|---------|---------|
| .204 | 2.213    | .00000 | 60.22349 | .26362 | .09986  | .09640  | .00115 | .00103  | -.00734 |
| .204 | 3.238    | .00000 | 60.45488 | .36853 | .09852  | .07508  | .00130 | .00141  | -.00732 |
| .204 | 4.307    | .00000 | 60.22012 | .47914 | .09915  | .05509  | .00118 | .00058  | -.00666 |
| .204 | 6.257    | .00000 | 60.34508 | .66641 | .10648  | .01384  | .00148 | .00104  | -.00393 |
| .204 | 8.337    | .00000 | 60.40664 | .87838 | .11936  | -.03988 | .00108 | -.00081 | -.00745 |
|      | GRADIENT | .00000 | -.00316  | .10293 | -.00033 | -.01972 | .00001 | -.00022 | .00033  |

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(CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5

(RJF369) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.430  
 STAB = -2.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700 GP = 54.000

RUN NO. 369/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN    | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|--------|---------|---------|
| .204 | 4.239    | .00000 | 60.19713 | .46914  | .09957 | .05955  | .00135 | .00073  | -.00970 |
| .204 | 6.310    | .00000 | 60.24327 | .66933  | .10610 | .01673  | .00165 | .00176  | -.00663 |
| .204 | 8.361    | .00000 | 60.03724 | .86317  | .12124 | -.03144 | .00111 | -.00051 | -.00690 |
| .204 | 10.342   | .00000 | 60.39382 | 1.06605 | .14189 | -.08104 | .00147 | .00093  | -.00663 |
| .204 | 12.403   | .00000 | 60.32885 | 1.26108 | .17102 | -.13548 | .00126 | -.00034 | -.00876 |
|      | GRADIENT | .00000 | .00000   | .00000  | .00000 | .00000  | .00000 | .00000  | .00000  |

(CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5

(RJF373) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = -11.700

RUN NO. 373/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | .254     | .00000 | 35.14399 | .28058  | .11823 | .12284  | .00180  | .00124  | -.00858 |
| .155 | 2.245    | .00000 | 35.12032 | .50150  | .11704 | .08223  | .00109  | .00057  | -.01599 |
| .155 | 4.325    | .00000 | 35.19013 | .70908  | .12428 | .04860  | .00142  | .00032  | -.01462 |
| .155 | 6.280    | .00000 | 35.18271 | .89370  | .13865 | .01654  | .00179  | -.00008 | -.01249 |
| .155 | 8.375    | .00000 | 35.24955 | 1.10544 | .15929 | -.02561 | .00161  | -.00080 | -.01131 |
| .155 | 10.377   | .00000 | 35.06619 | 1.29270 | .18552 | -.06192 | .00228  | -.00058 | -.01203 |
| .155 | 12.484   | .00000 | 35.24913 | 1.47221 | .22025 | -.11161 | .00202  | -.00187 | -.01221 |
| .155 | 14.471   | .00000 | 35.40319 | 1.66129 | .25422 | -.17737 | .00215  | .00050  | -.01097 |
| .155 | 16.581   | .00000 | 35.08266 | 1.82239 | .29658 | -.21191 | .00147  | .00009  | -.00714 |
| .155 | 18.442   | .00000 | 35.18513 | 1.90989 | .34065 | -.21550 | .00151  | -.00011 | -.01066 |
|      | GRADIENT | .00000 | .01150   | .10522  | .00150 | -.01322 | -.00009 | -.00023 | -.00147 |

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(RJF374) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAN = .187 RN/L = 1.090
STAB = -2.000 ELEVTR = .000
IORB = 6.000 ELEVON = -5.000
BDFLAP = .000
```

[illegible]

(RJF 375) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      4.094   RN/L   =      1.090
STAB   =     -2.000   ELEVTR =      .000
TORB   =      6.000   ELEVON =     -5.000
BDFLAP =      .000
```

[illegible]

(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF376) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      6.154    RN/L  =      1.090
STAB   =     -2.000    ELEVTR =      .000
IORB   =      6.000    ELEVON =     -5.000
BDFLAP =      .000
```

RUN NO. 376/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF377) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      8.131      RN/L =      1.090
STAB =     -2.000      ELEVTR =      .000
IORB =      6.000      ELEVON =     -5.000
BDFLAP =      .000
```

RUN NO. 377/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF378) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|        |   |        |        |   |        |
|--------|---|--------|--------|---|--------|
| ALPHAW | = | 10.146 | RN/L   | = | 1.090  |
| STAB   | = | -2.000 | ELEVTR | = | .000   |
| IORB   | = | 6.000  | ELEVON | = | -5.000 |
| BDFLAP | = | .000   |        |   |        |

RUN NO. 378/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F10TS402G5.3.5

(RJF379) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW = 12.167 RN/L = 1.090
STAB = -2.000 ELEVTR = .000
IORB = 6.000 ELEVON = +5.000
SOFLAP = .000
```

RUN NO. 379/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF380) ( 18 JUN 76 )

### PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | .132  | RN/L =   | 1.090  |
| STAB =   | 2.000 | ELEVTR = | .000   |
| IORB =   | 6.000 | ELEVON = | -5.000 |
| BDFLAP = | .000  |          |        |

[illegible]

(RJF381) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |       |          |        |
|----------|-------|----------|--------|
| ALPHAW = | 4.129 | RN/L =   | 1.090  |
| STAB =   | 2.000 | ELEVTR = | .000   |
| IORB =   | 6.000 | ELEVON = | -5.000 |
| BDFLAP = | .000  |          |        |

[illegible]

DATE 06 JUL 76

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(CA-8) K3.1TS7H15.6.1F10TS40205.3.5

(RJF382) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 6.149 RN/L = 1.090  
 STAB = 2.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 382/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW  | Q(PSF)   | CL     | CD     | CLM     | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|--------|--------|---------|--------|---------|---------|--------|
| .155 | 11.341   | 6.14849 | 35.25693 | .77628 | .11979 | -.16375 | .00036 | .00596  | .02858  | .00000 |
| .154 | 13.492   | 6.12462 | 35.01905 | .76400 | .12181 | -.16267 | .00043 | .00407  | .02777  | .00000 |
| .155 | 18.954   | 6.10629 | 35.17367 | .72865 | .12589 | -.14799 | .00081 | .00320  | .01774  | .00000 |
| .154 | 22.615   | 6.10076 | 35.10226 | .71859 | .12611 | -.14532 | .00078 | .00040  | .01116  | .00000 |
| .154 | 26.722   | 6.16822 | 35.02204 | .71962 | .12583 | -.14038 | .00091 | .00114  | .00745  | .00000 |
| .154 | 38.489   | 6.14156 | 35.05284 | .69948 | .12621 | -.13214 | .00094 | -.00051 | -.00288 | .00000 |
| .155 | 54.145   | 6.16750 | 35.34462 | .67835 | .12940 | -.12211 | .00109 | -.00003 | -.00372 | .00000 |
| .155 | 64.628   | 6.18217 | 35.18838 | .68638 | .12967 | -.11924 | .00120 | -.00063 | -.01124 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000 | .00000 | .00000  | .00000 | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7H15.6.1F10TS40205.3.5

(RJF383) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 8.171 RN/L = 1.090  
 STAB = 2.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = .000

RUN NO. 383/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW  | Q(PSF)   | CL     | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|---------|----------|--------|--------|---------|---------|---------|---------|--------|
| .155 | 11.340   | 8.17094 | 35.23395 | .99603 | .13626 | -.24401 | -.00112 | .00790  | .04413  | .00000 |
| .155 | 13.092   | 8.13907 | 35.20306 | .98420 | .13928 | -.24006 | .00006  | .00534  | .03065  | .00000 |
| .155 | 18.699   | 8.13075 | 35.28635 | .94456 | .14317 | -.21854 | .00014  | .00366  | .02338  | .00000 |
| .154 | 22.464   | 8.12997 | 35.11007 | .93584 | .14387 | -.20777 | .00059  | .00228  | .01866  | .00000 |
| .154 | 26.495   | 8.12144 | 35.13293 | .91277 | .14461 | -.19954 | .00057  | .00033  | .00719  | .00000 |
| .155 | 38.456   | 8.15068 | 35.30110 | .90033 | .14574 | -.18334 | .00087  | -.00040 | .00268  | .00000 |
| .155 | 53.925   | 8.17316 | 35.18253 | .89281 | .14705 | -.17214 | .00144  | .00092  | -.00291 | .00000 |
| .155 | 75.117   | 8.19188 | 35.17501 | .89464 | .14797 | -.16597 | .00151  | -.00024 | -.00655 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000 | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

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(CA-8) K3.1T57H15.6.1F10TS402G5.3.5

(RJF384) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW = 10.148 RN/L = 1.090
STAB = 2.000 ELEVTR = .000
IORB = 6.000 ELEVON = -5.000
BOFLAP = .000
```

RUN NO. 384/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) IK3.1TS7H15.6.1F10TS402G5.3.5

(RJF385) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IIN.XC
LREF = 327.8000 IN.       YMRP = .0000 IIN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IIN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW = 12.178   RN/L = 1.090
STAB = 2.000     ELEVTR = .000
IORB = 6.000     ELEVON = -5.000
BDFLAP = .000
```

RUN NO. 385/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]





(CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5

(RJF388) ( 18 JUN 76 )

## REFERENCE DATA

```
SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400
```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 6.127   | RN/L =   | 1.090 |
| STAB =   | .000    | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDCLAP = | -11.700 |          |       |

RUN NO. 388/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5

(RJF389) ( 18 JUN 76 )

### REFERENCE DATA

```
SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400
```

## PARAMETRIC DATA

```
ALPHAW =      8.161    RN/L  =      1.090
STAB   =      .000    ELEVTR =      .000
IORB   =      3.000    ELEVON =      .000
BDFLAP =     -11.700
```

RUN NO. 389/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



(CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5

(RJF392) ( 18 JUN 76 )

## REFERENCE DATA

```
SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400
```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | .128    | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 392/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5

(RJF393) ( 18 JUN 76 )

### REFERENCE DATA

```
SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400
```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 4.184   | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| LOBR =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 393/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF394) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      6.118   RN/L =      1.090
STAB =     -2.000   ELEVRT =      .000
IORB =      3.000   ELEVRN =      .000
BDELAP =    -11.700
```

[illegible]

(RJF395) ( 18 JUN 76

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 8.182   | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

[illegible]

CA-8 - FORCE SOURCE DATA TABULATION

•

(RJF396) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 10.125  | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 396/ 0      RN/L. =    .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF397) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 12.173 RN/L = 1.090
STAB = -2.000 ELEVTR = .000
TORB = 3.000 ELEVON = .000
BDFLAP = -11.700
```

RUN NO. 397/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5

(RJF398) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = .178 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 398/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW | Q(PSF)   | CL     | CD     | CLM    | CLN    | CSL    | CY      | BETA   |
|------|----------|--------|----------|--------|--------|--------|--------|--------|---------|--------|
| .154 | 11.278   | .17758 | 35.06853 | .02481 | .10488 | .25572 | .00258 | .00268 | .01706  | .00000 |
| .155 | 14.613   | .13154 | 35.22917 | .02557 | .10714 | .25490 | .00253 | .00078 | .01298  | .00000 |
| .155 | 24.699   | .16707 | 35.29662 | .02564 | .10802 | .23952 | .00206 | .00040 | .00755  | .00000 |
| .155 | 33.572   | .12200 | 35.39765 | .01983 | .10923 | .23896 | .00162 | .00115 | -.00365 | .00000 |
|      | GRADIENT | .00000 | .00000   | .00000 | .00000 | .00000 | .00000 | .00000 | .00000  | .00000 |

(CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5

(RJF399) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 4.155 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 399/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW  | Q(PSF)   | CL     | CD     | CLM    | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|--------|--------|--------|--------|---------|---------|--------|
| .155 | 11.331   | 4.15502 | 35.22267 | .49461 | .08897 | .15307 | .00273 | .00445  | .02945  | .00000 |
| .155 | 13.827   | 4.12558 | 35.19975 | .47361 | .09200 | .15704 | .00248 | .00386  | .02279  | .00000 |
| .154 | 23.110   | 4.16296 | 34.95215 | .43833 | .09614 | .16045 | .00136 | .00002  | .00511  | .00000 |
| .154 | 39.234   | 4.11617 | 35.05364 | .42225 | .09700 | .16239 | .00076 | -.00040 | -.00680 | .00000 |
| .155 | 54.164   | 4.12947 | 35.24578 | .40697 | .09821 | .16656 | .00066 | -.00093 | -.01125 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000 | .00000 | .00000 | .00000 | .00000  | .00000  | .00000 |

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(CA-8) K2.1TS7H15.6.1F10TS40IG5.3.5

(RJF400) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 6.152   | RN/L =   | 1.090 |
| STAB =   | -4.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 400/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(1A-8) K2.1TS7H15.6.1F10TS401G5.3.5

(RJF401) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 8.127   | RN/L =   | 1.090 |
| STAB =   | .000    | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 401/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



(RJF402) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 10.152  | RN/L =   | 1.090 |
| STAB =   | .000    | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

[illegible]

(RJF403) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 12.125 RN/L = 1.090
STAB = .000 ELEVTR = .000
IORB = 3.000 ELEVON = .000
BDFLAP = -11.700
```

[illegible]

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(RJF404) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      .144      RN/L  =      1.090
IORB    =      3.000      ELEVON =      .000
BDFLAP  =     -11.700
```

RUN NO. 404/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF405) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      4.201      RN/L   =      1.090
IORB    =      3.000      ELZVN  =      .000
BDFLAP  =     -11.700
```

RUN NO. 405/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7

F10TS401G5.3.5

(RJF406) ( 18 JUN 76 )

### REFERENCE DATA

```
SREF = 5500.0000 SQ.FT.  XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.      YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400
```

## PARAMETRIC DATA

```
ALPHAW =      6.129    RN/L   =      1.090
IORB    =      3.000    ELEVON =      .000
BDFLAP  =     -11.700
```

RUN NO. 406/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7

F10TS40IG5.3.5

(RJF407) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      8.129      RN/L =      1.090
IORB   =      3.000      ELEVON =      .000
BOFLAP =     -11.700
```

RUN NO. 407/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF408) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 10.123  | RN/L =   | 1.090 |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

[illegible]

(RJF409) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 12.202  | RN/L =   | 1.090 |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

[illegible]

(CA-8) K2.1TS7H15.6.1F10TS401G5.3.5

(RJF410) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

ALPHAW = .133 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -23.000  
 TORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 410/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW | Q(PSF)   | CL      | CD     | CLM    | CLN    | CSL     | CY      | BETA   |
|------|----------|--------|----------|---------|--------|--------|--------|---------|---------|--------|
| .155 | 11.277   | .13336 | 35.23670 | -.08363 | .11552 | .67167 | .00296 | .00130  | .00600  | .00000 |
| .155 | 13.566   | .08708 | 35.19369 | -.09432 | .11803 | .66769 | .00273 | .00115  | .00270  | .00000 |
| .155 | 23.721   | .03313 | 35.11761 | -.10707 | .12040 | .65651 | .00214 | .00024  | -.01041 | .00000 |
| .154 | 32.670   | .11344 | 35.08180 | -.09361 | .11901 | .64976 | .00172 | -.00200 | -.01867 | .00000 |
|      | GRADIENT | .00000 | .00000   | .00000  | .00000 | .00000 | .00000 | .00000  | .00000  | .00000 |

(CA-8) K2.1TS7H15.6.1F10TS401G5.3.5

(RJF411) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

ALPHAW = 4.213 RN/L = 1.090  
 STAB = -2.000 ELEVTR = -23.000  
 TORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 411/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW  | Q(PSF)   | CL     | CD     | CLM    | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|--------|--------|--------|--------|---------|---------|--------|
| .155 | 11.332   | 4.21319 | 35.19619 | .37600 | .09382 | .60313 | .00323 | .00418  | .01050  | .00000 |
| .155 | 13.290   | 4.18953 | 35.16994 | .36224 | .09596 | .59830 | .00300 | .00344  | .00591  | .00000 |
| .155 | 22.535   | 4.15919 | 35.15446 | .33639 | .09882 | .59463 | .00254 | .00197  | -.00121 | .00000 |
| .155 | 32.378   | 4.12801 | 35.20751 | .31988 | .09998 | .59726 | .00204 | .00014  | -.01258 | .00000 |
| .155 | 38.595   | 4.10913 | 35.24354 | .29824 | .10070 | .59847 | .00193 | .00029  | -.01579 | .00000 |
| .155 | 53.620   | 4.10690 | 35.15509 | .29489 | .10123 | .60085 | .00158 | -.00005 | -.02023 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000 | .00000 | .00000 | .00000 | .00000  | .00000  | .00000 |

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(RJF412) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      6.142    RN/L   =      1.090
STAB   =     -2.000    ELEVTR =     -23.000
IORB   =      3.000    ELEVON =      .000
BDFLAP =     -11.700
```

[illegible]

(RJF413) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | 8.115   | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| IORB =   | 3.000   | ELEVON = | .000    |
| BDFLAP = | -11.700 |          |         |

[illegible]

(RJF414) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | 10.239  | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| IORB =   | 3.000   | ELEVON = | .000    |
| BDFLAP = | -11.700 |          |         |

RUN NO. 414/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF415) ( 18 JUN 76 )

### REFERENCE DATA

```
SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400
```

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | 12.206  | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| TORB =   | 3.000   | ELEVON = | .000    |
| BDFLAP = | -11.700 |          |         |

RUN NO. 415/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5

(RJF416) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | .239    | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| IORB =   | 3.000   | ELEVON = | .000    |
| BDFLAP = | -11.700 |          |         |

RUN NO. 416/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-E) K2.1T57H15.6.1F20TS40IG5.3.5

(RJF417) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      4.132    RN/L   =      1.090
STAB    =     -2.000    ELEVTR =     -23.000
IOPB    =      3.000    ELEVON =       .000
BDFLAP  =    -11.700
```

RUN NO. 417/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



(CA-8) K2.1TS7H15.6.1F20TS401G5.3.5

(RJF418) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | 6.160   | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| LOPG =   | 3.000   | ELEVON = | .000    |
| BDFLAP = | -11.700 |          |         |

RUN NO. 418/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F20TS401G5.3.5

(RJF419) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      8.144    RN/L  =      1.090
STAB   =     -2.000    ELEVTR =    -23.000
IORB   =      3.000    ELEVON =      .000
BDFLAP =    -11.700
```

RUN NO. 419/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F20TS401G5.3.5

(RJF420) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW = 10.094 RN/L = 1.090
STAB = -2.000 ELEVTR = -23.000
IORB = 3.000 ELEVON = .000
BDFLAP = -11.700
```

RUN NO. 420/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5

(RJF421) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | 12.106  | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| TORB =   | 3.000   | ELEVON = | .000    |
| BDFLAP = | -11.700 |          |         |

RUN NO. 421/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF422) ( 18 JUN 76 )

### PARAMETRIC DATA

```
ALPHAW =      .183      RN/L =      1.090
IORB   =      3.000      ELEVON =      .000
BDFLAP =     -11.700
```

[illegible]

(RJF423) ( 18 JUN 76 )

### PARAMETRIC DATA

```
ALPHAW =      4.173    RN/L =      1.090
IORB   =      3.000    ELEVON =      .000
BDFLAP =     -11.700
```

[illegible]

(CA-8) K2.1TS7

F20TS40IG5.3.5

(RJF424)

( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

### PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 6.153   | RN/L =   | 1.090 |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 424/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7

F20TS401G5.3.5

(RJF425)

( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 8.284   | RN/L =   | 1.090 |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 | .        |       |

RUN NO. 425/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7

F20TS40165.3.5

(RJF426) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 10.235 RN/L = 1.090  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 426/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|----------|----------|---------|--------|---------|---------|---------|---------|--------|
| .155 | 11.326   | 10.23531 | 35.13576 | 1.33671 | .14699 | -.12383 | .00193  | .00975  | .01841  | .00000 |
| .155 | 13.209   | 10.21731 | 35.34760 | 1.35568 | .15274 | -.13576 | .00187  | .00717  | .01534  | .00000 |
| .155 | 21.910   | 10.20618 | 35.17441 | 1.34186 | .16738 | -.15971 | .00077  | .00282  | .00701  | .00000 |
| .155 | 38.442   | 10.19334 | 35.21499 | 1.31768 | .17496 | -.16702 | -.00021 | .00069  | -.00667 | .00000 |
| .155 | 53.732   | 10.18871 | 35.47167 | 1.30585 | .17886 | -.16379 | -.00093 | -.00215 | -.01317 | .00000 |
| .155 | 85.384   | 10.21312 | 35.34119 | 1.31262 | .18142 | -.16350 | -.00138 | -.00267 | -.01765 | .00000 |
|      | GRADIENT | .00000   | .00000   | .00000  | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

(CA-8) K2.1TS7

F20TS40165.3.5

(RJF427) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHAW = 12.154 RN/L = 1.090  
 IORB = 3.000 ELEVON = .000  
 BDFLAP = -11.700

RUN NO. 427/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
|------|----------|----------|----------|---------|--------|---------|---------|---------|---------|--------|
| .155 | 20.367   | 12.15431 | 35.16642 | 1.53390 | .18691 | -.16499 | .00102  | .00609  | .01166  | .00000 |
| .154 | 23.528   | 12.12787 | 35.07252 | 1.51040 | .19210 | -.16864 | .00071  | .00510  | .00793  | .00000 |
| .155 | 39.638   | 12.16338 | 35.22179 | 1.49095 | .20457 | -.17540 | -.00074 | -.00090 | -.01047 | .00000 |
| .155 | 55.177   | 12.19365 | 35.18448 | 1.49440 | .20734 | -.17172 | -.00036 | -.00015 | -.01217 | .00000 |
| .155 | 97.462   | 12.26972 | 35.45820 | 1.49912 | .21267 | -.17202 | -.00101 | -.00195 | -.01696 | .00000 |
|      | GRADIENT | .00000   | .00000   | .00000  | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

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(RJF428) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | .228    | RN/L =   | 1.090 |
| STAB =   | -6.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

[illegible]

(RJF429) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 4.127   | RN/L =   | 1.090 |
| STAB =   | -6.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

[illegible]

(CA-8) K2.1TS7H15.6.1F20TS401G5.3.5

(RJF430) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      6.124    RN/L   =      1.090
STAB   =     -6.000    ELEVTR =      .000
IORB   =      3.000    ELEVON =      .000
BDFLAP =     -11.700
```

RUN NO. 430/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5

(RJF431) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 8.118   | RN/L =   | 1.090 |
| STAB =   | -6.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BOFLAP = | -11.700 |          |       |

RUN NO. 431/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF432) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

### PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 10.125  | RN/L =   | 1.090 |
| STAB =   | -6.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 432/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF433) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

### PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 12.127  | RN/L =   | 1.090 |
| STAB =   | -6.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 433/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



(CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5

(RJF:434) ( 18 JUN 76 )

### REFERENCE DATA

```
SREF = 5500.0000 SQ.FT.  XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.      YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400
```

## PARAMETRIC DATA

```
ALPHAW = .213 RN/L = 1.090
STAB = -4.000 ELEVTR = .000
IORB = 3.000 ELEVON = .000
BDFLAP = -11.700
```

RUN NO. 434/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5

(RJF435) ( 18 JUN 76 )

### REFERENCE DATA

```

GREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.       ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      4.217      RN/L =      1.090
STAB   =     -4.000      ELEVTR =      .000
IORB   =      3.000      ELEVON =      .000
BDFLAP =     -11.700
```

RUN NO. 435/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

CA-8 - FORCE SOURCE DATA TABULATION

(CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5

(RJF436) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      6.243      RN/L =      1.090
STAB   =     -4.000      ELEVTR =      .000
IORB   =      3.000      ELEVON =      .000
BDFLAP =     -11.700
```

RUN NO. 436/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

|      |          |         |          |        |        |         |        |         |         |        |
|------|----------|---------|----------|--------|--------|---------|--------|---------|---------|--------|
| MACH | GP       | ALPHAW  | Q(PSF)   | CL     | CD     | CLM     | CLN    | CSL     | CY      | BETA   |
| .155 | 11.341   | 6.24261 | 35.28259 | .98144 | .11709 | -.01652 | .00347 | .00624  | .01645  | .00000 |
| .155 | 13.408   | 6.21909 | 35.31244 | .97287 | .12191 | -.01557 | .00287 | .00446  | .00932  | .00000 |
| .154 | 22.425   | 6.20203 | 35.06944 | .93148 | .12924 | .01222  | .00215 | .00152  | .00138  | .00000 |
| .154 | 38.079   | 6.17649 | 35.11888 | .88997 | .13286 | .04397  | .00167 | .00038  | -.01406 | .00000 |
| .155 | 53.895   | 6.14776 | 35.31670 | .88542 | .13350 | .05648  | .00119 | -.00066 | -.01662 | .00000 |
| .155 | 64.383   | 6.10669 | 35.31395 | .86627 | .13433 | .06213  | .00120 | -.00229 | -.01855 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000 | .00000 | .00000  | .00120 | -.00229 | -.01855 | .00000 |
|      |          |         |          |        |        |         | .00000 | .00000  | .00000  | .00000 |

(CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5

(RJF437) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 8.082   | RN/L =   | 1.090 |
| STAB =   | -4.000  | ELEVTR = | .030  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 437/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF438) ( 18 JUN 76 )

## PARAMETRIC DATA .

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 10.091  | RN/L =   | 1.090 |
| STAB =   | -4.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 438/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF439) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 12.115 RN/L = 1.090
STAB = -4.000 ELEVTR = .000
IORB = 3.000 ELEVON = .000
BDFLAP = -11.700
```

RUN NO. 439/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(CA-8) K2.1T57H15.6.1F20TS40IG5.3.5

(RJF440) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | .293    | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 440/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F20TS40IG5.3.5

(RJF441) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 4.248   | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 441/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA   | Q (PSF)  | CL     | CD      | CLM     | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|--------|---------|---------|--------|---------|---------|--------|
| .155 | 11.332   | 4.24756 | 35.24977 | .80084 | .10852  | -.05029 | .00305 | .00468  | .01320  | .00000 |
| .155 | 13.650   | 4.22809 | 35.18292 | .78452 | .11340  | -.04472 | .00249 | .00340  | .00828  | .00000 |
| .154 | 22.861   | 4.20266 | 34.93984 | .74910 | .11847  | -.02893 | .00195 | .00072  | -.00163 | .00000 |
| .155 | 38.863   | 4.15972 | 35.30625 | .70791 | .12244  | -.00719 | .00089 | -.00123 | -.01537 | .00000 |
| .155 | 53.912   | 4.07949 | 35.27384 | .70049 | .12185  | .00379  | .00124 | .00043  | -.01779 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000 | -.00000 | .00000  | .00000 | .00000  | .00000  | .00000 |

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(CA-8) K2.1TS7H15.6.1F20TS401G5.3.5

(RJF442) ( 18 JUN 76 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
LREF = 327.8000 IN. YMRP = .0000 IN.YC  
BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
SCALE = .0400

PARAMETRIC DATA

ALPHAW = 6.218 RN/L = 1.090  
STAB = -2.000 ELEVTR = .000  
IORB = 3.000 ELEVON = .000  
BDFLAP = -11.700

RUN NO. 442/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW  | Q(PSF)   | CL     | CD     | CLM     | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|--------|--------|---------|--------|---------|---------|--------|
| .154 | 11.341   | 6.21790 | 35.01349 | .99757 | .11973 | -.11127 | .00271 | .00512  | .01604  | .00000 |
| .154 | 13.095   | 6.19997 | 35.01328 | .99827 | .12313 | -.11275 | .00283 | .00490  | .01701  | .00000 |
| .155 | 22.216   | 6.17884 | 35.22566 | .94133 | .13163 | -.08251 | .00209 | .00237  | .00082  | .00000 |
| .155 | 38.050   | 6.15446 | 35.12815 | .92755 | .13430 | -.05615 | .00095 | -.00061 | -.00813 | .00000 |
| .155 | 53.880   | 6.11999 | 35.34812 | .90447 | .13572 | -.04203 | .00093 | -.00154 | -.01589 | .00000 |
| .155 | 64.312   | 6.11818 | 35.34169 | .90133 | .13640 | -.03616 | .00101 | -.00203 | -.01923 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000 | .00000 | .00000  | .00000 | .00000  | .00000  | .00000 |

(CA-8) K2.1TS7H15.6.1F20TS401G5.3.5

(RJF443) ( 18 JUN 76 )

REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
LREF = 327.8000 IN. YMRP = .0000 IN.YC  
BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
SCALE = .0400

PARAMETRIC DATA

ALPHAW = 8.128 RN/L = 1.090  
STAB = -2.000 ELEVTR = .000  
IORB = 3.000 ELEVON = .000  
BDFLAP = -11.700

RUN NO. 443/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW  | Q(PSF)   | CL      | CD     | CLM     | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|---------|--------|---------|--------|---------|---------|--------|
| .155 | 11.340   | 8.12768 | 35.29059 | 1.18685 | .13432 | -.17440 | .00129 | .00777  | .02257  | .00000 |
| .155 | 12.376   | 8.10896 | 35.14460 | 1.18140 | .13745 | -.17421 | .00185 | .00832  | .02291  | .00000 |
| .154 | 21.953   | 8.06411 | 35.08823 | 1.15502 | .14864 | -.13930 | .00205 | .00323  | .00703  | .00000 |
| .155 | 37.714   | 8.09037 | 35.13951 | 1.12396 | .15342 | -.10258 | .00116 | -.00057 | -.00952 | .00000 |
| .155 | 52.882   | 8.16170 | 35.25813 | 1.10354 | .15681 | -.08481 | .00077 | -.00275 | -.01473 | .00000 |
| .155 | 74.385   | 8.20774 | 35.13221 | 1.10033 | .15921 | -.07658 | .00120 | -.00240 | -.02084 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  | .00000 | .00000  | .00000 | .00000  | .00000  | .00000 |

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ORIGINAL PAGE IS POOR

(CA-8) K2.1TS7H15.6.1F20TS401G5.3.5

(RJF444) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 10.224  | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 444/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F20TS401G5.3.5

(RJF445) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 12.120  | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 445/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F30TS401G5.3.5

(RJF446) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | .219    | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 446/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5

(RJF447) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW = 4.139 RN/L = 1.090
STAB = -2.000 ELEVTR = .000
IORB = 3.000 ELEVON = .000
BDFLAP = -11.700
```

RUN NO. 447/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ .500

[illegible]

CA-8 - FORCE SOURCE DATA TABULATION

(CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5

(RJF448) ( 18 JUN 76 )

### PARAMETRIC DATA

```
ALPHAW =      6.120    RN/L   =      1.090
STAB   =     -2.000    ELEVTR =      .000
IORB   =      3.000    ELEVON =      .000
BDFLAP =     -11.700
```

RUN NO. 448/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K2.1TS7H15.6.1F30TS40IG5.3.5

(RJF449) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      8.179    RN/L =      1.090
STAB   =     -2.000    ELEVTR =     .000
IORB   =      3.000    ELEVON =     .000
BDFLAP =    -11.700
```

RUN NO. 449/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW  | Q(PSF)   | CL      | CD     | CLM     | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|---------|--------|---------|--------|---------|---------|--------|
| .155 | 11.340   | 8.17887 | 35.33943 | 1.59020 | .21316 | -.37840 | .00249 | .00904  | .01045  | .00000 |
| .155 | 12.309   | 8.16444 | 35.43188 | 1.61429 | .22334 | -.39354 | .00296 | .00874  | .01161  | .00000 |
| .155 | 20.718   | 8.18491 | 35.47253 | 1.66810 | .25538 | -.37977 | .03043 | .00395  | .00659  | .00000 |
| .154 | 37.776   | 8.18045 | 35.02378 | 1.60273 | .27694 | -.29356 | .03023 | -.00168 | -.00979 | .00000 |
| .155 | 53.257   | 8.17976 | 35.18359 | 1.59215 | .28138 | -.26585 | .03047 | -.00288 | -.01647 | .00000 |
| .155 | 74.409   | 8.23758 | 35.55089 | 1.57740 | .28577 | -.24966 | .03021 | -.00399 | -.01986 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  | .00000 | .00000  | .03000 | .00000  | .00000  | .00000 |



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(RJF450) ( 18 JUN '76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 10.056  | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 450/ 0      RN/L =      .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF451) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 12.196  | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 3.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 451/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

CA-8 - FORCE SOURCE DATA TABULATION

(CA-8) K3.1TS7H15.6.1F20T5401G5.3.5

(RJF452) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | .270    | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 6.000   | ELEVON = | .000  |
| BOFLAP = | -11.700 |          |       |

RUN NO. 452/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F20TS401G5.3.5

(RJF453) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 4.217   | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 6.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 453/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF454) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      6.212    RN/L =      1.090
STAB =     -2.000    ELEVTR =      .000
IORB =      6.000    ELEVON =      .000
BDFLAP =    -11.700
```

[illegible]

(RJF455) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      8.189    RN/L =      1.090
STAB   =     -2.000    ELEVTR =      .000
TORB   =      6.000    ELEVON =      .000
BDFLAP =    -11.700
```

[illegible]

CA-8 - FORCE SOURCE DATA TABULATION

(CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5

(RJF456) ( 18 JUN 76 )

## PARAMETRIC DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

```
ALPHAW = 10.141 RN/L = 1.090
STAB = -2.000 ELEVTR = .000
TORB = 6.000 ELEVON = .000
BDFLAP = -11.700
```

RUN NO. 456/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5

(RJF457) ( 18 JUN 76 )

### PARAMETRIC DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

|          |         |          |       |
|----------|---------|----------|-------|
| ALPHAW = | 12.130  | RN/L =   | 1.090 |
| STAB =   | -2.000  | ELEVTR = | .000  |
| IORB =   | 6.000   | ELEVON = | .000  |
| BDFLAP = | -11.700 |          |       |

RUN NO. 457/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF458) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | .205    | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

[illegible]

(RJF459) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      4.216      RN/L =      1.090
STAB =     -2.000      ELEVTR =      .000
IORB =      6.000      ELEVON =     -5.000
BDFLAP =    -11.700
```

[illegible]

CA-8 - FORCE SOURCE DATA TABULATION

(CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5

(RJF460) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 6.252   | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 460/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F20TS401G5.3.5

(RJF461) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 8.145 RN/L = 1.090
STAB = -2.000 ELEVTR = .000
IORB = 6.000 ELEVON = -5.000
BDFLAP = -11.700
```

RUN NO. 461/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW  | Q(PSF)   | CL      | CD     | CLM     | CLN      | CSL     | CY      | BETA   |
|------|----------|---------|----------|---------|--------|---------|----------|---------|---------|--------|
| .154 | 11.340   | 8.14494 | 34.96010 | 1.19308 | .14320 | -.12015 | -.000002 | .00700  | .02448  | .00000 |
| .154 | 12.012   | 8.12785 | 35.15335 | 1.19049 | .14546 | -.12119 | .00013   | .00661  | .02530  | .00000 |
| .155 | 21.461   | 8.11872 | 35.16587 | 1.15196 | .15656 | -.08198 | .00179   | .00239  | .00593  | .00000 |
| .155 | 37.364   | 8.23907 | 35.42682 | 1.13517 | .16173 | -.04876 | .00108   | -.00229 | -.00848 | .00000 |
| .155 | 52.891   | 8.22085 | 35.30778 | 1.10335 | .16360 | -.03308 | .00129   | -.00333 | -.01747 | .00000 |
| .155 | 74.094   | 8.20037 | 35.17440 | 1.11098 | .16408 | -.02613 | .00158   | -.00270 | -.02037 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000  | .00000 | .00000  | .00300   | .00000  | .00000  | .00000 |

(RJF462) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 10.097  | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 462/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF463) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 12.112  | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 463/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

CA-8 - FORCE SOURCE DATA TABULATION

(CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5

(RJF464) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | .156    | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | .000   |
| IORS =   | 6.000   | ELEVON = | -5.000 |
| BOFLAP = | -11.700 |          |        |

RUN NO. 464/ 0    RN/L =    :00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F20TS401G5.3.5

(RJF465) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 4.137 RN/L = 1.090
STAB = -2.000 ELEVTR = .000
IORB = 6.000 ELEVON = -5.000
BDFLAP = -11.700
```

RUN NO. 465/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



(CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5

(RJF466) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 6.138   | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BOFLAP = | -11.700 |          |        |

RUN NO. 466/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW  | Q(PSF)   | CL     | CD     | CLM     | CLN    | CSL     | CY      | BETA   |
|------|----------|---------|----------|--------|--------|---------|--------|---------|---------|--------|
| .155 | 11.341   | 6.13763 | 35.20423 | .97576 | .12220 | -.05049 | .C0244 | .00521  | -.01639 | .00000 |
| .155 | 12.555   | 6.11759 | 35.25735 | .98329 | .12463 | -.05302 | .C0198 | .00405  | -.01274 | .00000 |
| .155 | 21.686   | 6.14177 | 35.36765 | .94333 | .13295 | -.02813 | .C0207 | .00285  | -.00577 | .00000 |
| .155 | 37.540   | 6.12289 | 35.22358 | .91622 | .13543 | -.00300 | .C0131 | -.00190 | -.00910 | .00000 |
| .155 | 53.195   | 6.17584 | 35.25080 | .89613 | .13848 | .00909  | .C0130 | -.00232 | -.01561 | .00000 |
| .155 | 63.673   | 6.17827 | 35.18393 | .90300 | .13870 | .01208  | .C0167 | -.00207 | -.01855 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000 | .00000 | .00000  | .C0000 | .00000  | .00000  | .00000 |

(CA-8) K3.1T57H15.6.1F20TS401G5.3.5

(RJF467) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      8.126    RN/L   =      1.090
STAB   =     -2.000    ELEVTR =      .000
IORB   =      6.000    ELEVON =     -5.000
BDFLAP =    -11.700
```

RUN NO. 467/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

CA-8 - FORCE SOURCE DATA TABULATION

(CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5

(RJF468) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 10.114  | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 468/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

|      |          |          |          |         |  |        |         |         |         |         |        |
|------|----------|----------|----------|---------|--|--------|---------|---------|---------|---------|--------|
| MACH | GP       | ALPHAW   | Q(PSF)   | CL      |  | CD     | CLM     | CLN     | CSL     | CY      | BETA   |
| .154 | 11.327   | 10.11423 | 35.04264 | 1.35881 |  | .16056 | -.20452 | -.00183 | .00908  | .03089  | .00000 |
| .154 | 12.058   | 10.13001 | 35.07929 | 1.37007 |  | .16370 | -.20245 | -.00167 | .00841  | .02966  | .00000 |
| .154 | 20.974   | 10.12936 | 35.11743 | 1.34707 |  | .17689 | -.14494 | .00167  | .00450  | .00753  | .00000 |
| .155 | 37.333   | 10.13338 | 35.43961 | 1.30380 |  | .18325 | -.08950 | .00173  | -.00039 | -.00816 | .00000 |
| .155 | 52.732   | 10.18426 | 35.33985 | 1.29451 |  | .18577 | -.07254 | .00160  | -.00264 | -.01543 | .00000 |
| .155 | 84.371   | 10.25390 | 35.39045 | 1.28344 |  | .18992 | -.05875 | .00150  | -.00329 | -.01679 | .00000 |
|      | GRADIENT | .00000   | .00000   | .00000  |  | .00000 | .00000  | .00000  | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5

(RJF469) ( 18 JUN 76 )

### PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 12.137  | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BOFLAP = | -11.700 |          |        |

RUN NO. 469/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F20TS401G5.3.5

(RJF470) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHA = .211 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = -11.700

RUN NO. 470/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA  | Q(PSF)   | CL     | CD     | CLM    | CLN    | CSL     | CY      | BETA   |
|------|----------|--------|----------|--------|--------|--------|--------|---------|---------|--------|
| .154 | 11.278   | .21106 | 35.04381 | .30152 | .11134 | .21761 | .00300 | .00326  | .00882  | .01000 |
| .155 | 14.002   | .16162 | 35.32128 | .29393 | .11440 | .21232 | .00254 | .00113  | .00455  | .01000 |
| .155 | 24.097   | .11072 | 35.22565 | .26695 | .11800 | .21340 | .00254 | -.00008 | -.00762 | .00000 |
| .155 | 32.935   | .13601 | 35.40252 | .24903 | .11972 | .21494 | .00192 | .00075  | -.01465 | .00000 |
|      | GRADIENT | .00000 | .00000   | .00000 | .00000 | .00000 | .00000 | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7H15.6.1F20TS401G5.3.5

(RJF471) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

ALPHA = 4.154 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 IORB = 6.000 ELEVON = -5.000  
 BDFLAP = -11.700

RUN NO. 471/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA   | Q(PSF)   | CL     | CD     | CLM    | CLN    | CSL    | CY      | BETA   |
|------|----------|---------|----------|--------|--------|--------|--------|--------|---------|--------|
| .155 | 11.331   | 4.15394 | 35.25961 | .76019 | .11010 | .10890 | .00266 | .00510 | .01489  | .00000 |
| .154 | 12.938   | 4.13429 | 35.14014 | .74625 | .11294 | .11036 | .00260 | .00440 | .01243  | .00000 |
| .154 | 22.211   | 4.10787 | 34.94914 | .70262 | .11885 | .12623 | .00220 | .00124 | -.00080 | .00000 |
| .154 | 38.342   | 4.11637 | 34.89285 | .67942 | .12127 | .13835 | .00138 | .00062 | -.01082 | .00000 |
| .154 | 53.271   | 4.16156 | 34.82167 | .67990 | .12246 | .14541 | .00144 | .00019 | -.01416 | .00000 |
|      | GRADIENT | .00000  | .00000   | .00000 | .00000 | .00000 | .00000 | .00000 | .00000  | .00000 |

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(RJF472) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 6.134 RN/L = 1.090
STAB = -4.000 ELEVTR = .000
IORB = 6.000 ELEVON = -5.000
BDFLAP = -11.700
```

RUN NO. 472/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF473) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 8.145   | RN/L =   | 1.090  |
| STAB =   | -4.000  | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BOFLAP = | -11.700 |          |        |

RUN NO. 473/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF474) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 10.110  | RN/L =   | 1.090  |
| STAB =   | -4.000  | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 474/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF475) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 12.143  | RN/L =   | 1.090  |
| STAB =   | -4.000  | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 475/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF476) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | .160    | RN/L =   | 1.090  |
| STAB =   | .000    | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BOFLAP = | -11.700 |          |        |

[illegible]

(RJF477) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 4.122 RN/L = 1.090
STAB = .000 ELEVTR = .000
IORB = 6.000 ELEVON = -5.000
BDFLAP = -11.700
```

[illegible]

(CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5

(RJF478) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 6.123   | RN/L =   | 1.090  |
| STAB =   | .000    | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 478/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F20TS401G5.3.5

(RJF479) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 8.107   | RN/L =   | 1.090  |
| STAB =   | .000    | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 479/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

CA-8 - FORCE SOURCE DATA TABULATION

(CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5

(RJF480) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 10.145  | RN/L =   | 1.090  |
| STAB =   | .000    | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 480/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHAW   | Q(PSF)   | CL      |  | CD     | CLM      | CLN     | CSL     | CY      | BETA   |
|------|----------|----------|----------|---------|--|--------|----------|---------|---------|---------|--------|
| .154 | 11.327   | 10.14503 | 35.12387 | 1.38757 |  | .16573 | - .30320 | -.00111 | .00721  | .02228  | .00000 |
| .154 | 12.218   | 10.12261 | 35.11607 | 1.40052 |  | .16760 | - .30065 | -.00190 | .00704  | .03156  | .00000 |
| .155 | 21.134   | 10.12411 | 35.21648 | 1.36445 |  | .18116 | - .23583 | .00115  | .00355  | .01278  | .00000 |
| .155 | 37.467   | 10.16314 | 35.22323 | 1.33140 |  | .18709 | - .18170 | .00200  | -.00078 | -.00864 | .00000 |
| .155 | 52.878   | 10.19129 | 35.36329 | 1.31731 |  | .18979 | - .16126 | .00156  | -.00420 | -.01725 | .00000 |
| .155 | 84.539   | 10.25356 | 35.30286 | 1.31702 |  | .19339 | - .15246 | .00181  | -.00314 | -.01996 | .00000 |
|      | GRADIENT | .00000   | .00000   | .00000  |  | .00000 | .00000   | .00000  | .00000  | .00000  | .00000 |

(CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5

(RJF481) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 12.153  | RN/L =   | 1.090  |
| STAB =   | .000    | ELEVTR = | .000   |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 481/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



(RJF482) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      .145   RN/L =      1.090
TORB   =      6.000   ELEVON =     -5.000
BOFLAP =     -11.700
```

RUN NO. 482/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

| MACH | GP       | ALPHA  | Q (PSF)  | CL     | CD     | CLM     | CLN    | CSL     | CY      | BETA   |
|------|----------|--------|----------|--------|--------|---------|--------|---------|---------|--------|
| .155 | 11.277   | .14475 | 35.32961 | .38036 | .10829 | -.11251 | .30259 | .00346  | .00881  | .00000 |
| .155 | 14.391   | .09932 | 35.26386 | .36978 | .11250 | -.11755 | .30211 | .00080  | .00627  | .00000 |
| .155 | 24.485   | .13709 | 35.30441 | .35769 | .11535 | -.12856 | .30124 | .00058  | -.00339 | .00000 |
| .155 | 33.363   | .18535 | 35.28037 | .36373 | .11579 | -.12668 | .30025 | -.00020 | -.01223 | .00000 |
|      | GRADIENT | .00000 | .00000   | .00000 | .00000 | .00000  | .30000 | .00000  | .00000  | .00000 |

(RJF483) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      4.103      RN/L =      1.090
IORB    =      6.000      ELEVON =     -5.000
BDFLAP  =     -11.700
```

RUN NO. 483/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1T57

F20TS401G5.3.5

(RJF484) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

|        |   |         |        |   |        |
|--------|---|---------|--------|---|--------|
| ALPHAW | = | 6.140   | RN/L   | = | 1.090  |
| IORB   | = | 6.000   | ELEVON | = | -5.000 |
| BOFLAP | = | -11.700 |        |   |        |

RUN NO. 484/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7

F20TS401G5.3.5

(RJF485) ( 18 JUN 76 )

### REFERENCE DATA

## PARAMETRIC DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

```
ALPHAW =      8.130      RN/L =      1.090
IORB =      6.000      ELEVON =     -5.000
BDFLAP =     -11.700
```

RUN NO. 485/ 0    RN/L =    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF486) ( 18 JUN 76 )

## PARAMETRIC DATA

|        |   |         |        |   |        |
|--------|---|---------|--------|---|--------|
| ALPHAW | = | 10.130  | RN/L   | = | 1.090  |
| IORB   | = | 6.000   | ELEVON | = | -5.000 |
| BDFLAP | = | -11.700 |        |   |        |

RUN NO. 486/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(RJF487) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 12.185  | RN/L =   | 1.090  |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 487/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF488) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | .166    | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | 17.000 |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

[illegible]

(RJF489) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 4.115   | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | 17.000 |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

[illegible]

CA-8 - FORCE SOURCE DATA TABULATION

(CA-8) K3.1T57H15.6.1F20TS40IG5.3.5

(RJF490) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 6.174   | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | 17.000 |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 490/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5

(RJF491) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 8.145   | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | 17.000 |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BOFLAP = | -11.700 |          |        |

RUN NO. 491/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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DATE 06 JUL 76

CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5

(RJF492) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|        |   |         |        |   |        |
|--------|---|---------|--------|---|--------|
| ALPHAW | = | 10.122  | RN/L   | = | 1.090  |
| STAB   | = | -2.000  | ELEVTR | = | 17.000 |
| ICRB   | = | 6.000   | ELEVON | = | -5.000 |
| BDFLAP | = | -11.700 |        |   |        |

RUN NO. 492/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5

(RJF493) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 12.184  | RN/L =   | 1.090  |
| STAB =   | -2.000  | ELEVTR = | 17.000 |
| IORB =   | 6.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 |          |        |

RUN NO. 493/ 0    RN/L =.    .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

CA-8 - FORCE SOURCE DATA TABULATION

(CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5

(RJF494) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | .161    | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| IORB =   | 6.000   | ELEVON = | -5.000  |
| BDFLAP = | -11.700 |          |         |

RUN NO. 494/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5

(RJF495) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | 4.131   | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| IORB =   | 6.000   | ELEVON = | -5.000  |
| BOFLAP = | -11.700 |          |         |

RUN NO. 495/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]





(RJF498) ( 18 JUN 76 ) . . .

### PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | 10.133  | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| IORB =   | 6.000   | ELEVON = | -5.000  |
| BOFLAP = | -11.700 |          |         |

[illegible]

(RJF499) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | 12.145  | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| IORB =   | 6.000   | ELEVON = | -5.000  |
| BDFLAP = | -11.700 |          |         |

[illegible]

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(RJF500) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | .171    | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| IORB =   | 8.000   | ELEVON = | -5.000  |
| BDFLAP = | -11.700 | GRD PL = | 11.000  |

[illegible]

(RJF501) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW =      4.131      RN/L   =      1.090
STAB   =     -2.000      ELEVTR =     -23.000
IORB   =      8.000      ELEVON =     -5.000
BDFLAP =     -11.700
```

[illegible]

(RJF502) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | 6.158   | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| IORB =   | 8.000   | ELEVON = | -5.000  |
| BDFLAP = | -11.700 |          |         |

[illegible]

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(RJF503) ( 18 JUN 76 )

## PARAMETRIC DATA

|          |         |          |         |
|----------|---------|----------|---------|
| ALPHAW = | 8.117   | RN/L =   | 1.090   |
| STAB =   | -2.000  | ELEVTR = | -23.000 |
| IORB =   | 8.000   | ELEVON = | -5.000  |
| BDFLAP = | -11.700 |          |         |

RUN NO. 503/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ -5.00

[illegible]

(RJF504) ( 18 JUN 76 )

## PARAMETRIC DATA

```
ALPHAW = 10.134 RN/L = 1.090
STAB = -2.000 ELEVTR = -23.000
IORB = 8.000 ELEVON = -5.000
BDFLAP = -11.700
```

RUN NO. 504/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

CA-B - FORCE SOURCE DATA TABULATION

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(CA-8) K3.1TS7H15.6.1F20TS40IG5.3.5

(RJF505) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW = 12.118 RN/L = 1.090
STAB = -2.000 ELEVTR = -23.000
IORB = 8.000 ELEVON = -5.000
BDFLAP = -11.700
```

RUN NO. 505/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7

F20TS401G5.3.5

(RJF506) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | .111    | RN/L =   | 1.090  |
| IORB =   | 8.000   | ELEVON = | -5.000 |
| BDFLAP = | -11.700 | GP =     | 11.000 |

RUN NO. 506/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7

F20TS401G5.3.5

(RJF507) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|          |         |          |        |
|----------|---------|----------|--------|
| ALPHAW = | 4.088   | RN/L =   | 1.090  |
| IORB =   | 8.000   | ELEVON = | -5.000 |
| BDELAP = | -11.700 |          |        |

RUN NO. 507/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

(CA-8) K3.1TS7

F20T5401G5.3.5

(RJF508) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|        |   |         |        |   |        |
|--------|---|---------|--------|---|--------|
| ALPHAW | = | 6.138   | RN/L   | = | 1.090  |
| IORB   | = | 8.000   | ELEVON | = | -5.000 |
| BDFLAP | = | -11.700 |        |   |        |

RUN NO. 508/ 0      RN/L = .00      GRADIENT INTERVAL = -3.00/ 5.00

[illegible]

(CA-8) K3.1TS7

F20TS401G5.3.5

(RJF509) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

```
ALPHAW =      8.116    RN/L =      1.090
IORB =      8.000    ELEVON =     -5.000
BDFLAP =     -11.700
```

RUN NO. 509/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(CA-8) K1.2H15.6.1F30G5.3.5TS2

(RJF510) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -6.000 ELEVTR = .000  
 GP = 65.000

RUN NO. 510/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q (PSF)  | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .154 | .294     | .00000 | 35.03235 | .80556  | .18065 | .17378  | -.00055 | -.00135 | .00099  |
| .154 | 1.347    | .00000 | 35.06984 | .92093  | .18602 | .14691  | .00022  | .00101  | .00321  |
| .154 | 2.327    | .00000 | 35.17299 | 1.00298 | .19614 | .12494  | -.00071 | -.00061 | .00364  |
| .155 | 3.318    | .00000 | 35.22056 | 1.10749 | .20333 | .09786  | -.00051 | .00042  | .00278  |
| .155 | 4.285    | .00000 | 35.20501 | 1.21085 | .21234 | .07214  | -.00129 | -.00124 | .00233  |
| .154 | 5.392    | .00000 | 35.02038 | 1.30240 | .22511 | .05309  | -.00062 | -.00006 | -.00183 |
| .154 | 6.367    | .00000 | 35.02539 | 1.39321 | .23607 | .03035  | -.00077 | -.00048 | .00262  |
| .154 | 7.370    | .00000 | 35.07919 | 1.48454 | .24785 | .00542  | -.00089 | -.00107 | .00291  |
| .154 | 8.361    | .00000 | 35.16562 | 1.56525 | .26216 | -.01718 | -.00100 | -.00137 | .00307  |
| .154 | 9.500    | .00000 | 35.03036 | 1.65917 | .27869 | -.04006 | -.00072 | -.00112 | .00320  |
| .155 | 10.524   | .00000 | 35.27654 | 1.75445 | .29215 | -.06580 | -.00039 | -.00026 | .00330  |
| .154 | 11.459   | .00000 | 35.18047 | 1.81569 | .30716 | -.09403 | -.00059 | -.00148 | .00237  |
| .154 | 12.488   | .00000 | 35.19465 | 1.88639 | .32268 | -.10309 | -.00071 | -.00155 | .00444  |
|      | GRADIENT | .00000 | .04993   | .10019  | .00810 | -.02535 | -.00022 | -.00003 | .00023  |

(CA-8) K1.2H15.6.1F30G5.3.5TS2

(RJF511) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 GP = 65.000

RUN NO. 511/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY     |
|------|----------|--------|----------|---------|--------|---------|---------|---------|--------|
| .154 | .340     | .00000 | 35.05355 | .84391  | .17899 | .07088  | -.00081 | -.00020 | .00190 |
| .154 | 1.263    | .00000 | 35.09389 | .94083  | .18420 | .04645  | -.00067 | -.00002 | .00114 |
| .154 | 2.383    | .00000 | 35.09566 | 1.05668 | .19324 | .01918  | -.00095 | .00017  | .00370 |
| .154 | 3.340    | .00000 | 35.08749 | 1.14398 | .20290 | -.00191 | -.00051 | .00035  | .00398 |
| .154 | 4.373    | .00000 | 35.12277 | 1.24576 | .21285 | -.02575 | -.00039 | .00031  | .00232 |
| .154 | 5.469    | .00000 | 35.08103 | 1.34453 | .22528 | -.04821 | -.00106 | -.00111 | .00480 |
| .154 | 6.358    | .00000 | 35.12835 | 1.42609 | .23592 | -.06628 | -.00067 | -.00052 | .00176 |
| .154 | 7.414    | .00000 | 35.13169 | 1.51502 | .25037 | -.09011 | -.00056 | -.00018 | .00393 |
| .154 | 8.489    | .00000 | 35.06700 | 1.59540 | .26646 | -.11443 | -.00077 | -.00019 | .00292 |
| .154 | 9.474    | .00000 | 34.98798 | 1.67847 | .28111 | -.13481 | -.00096 | -.00095 | .00312 |
| .154 | 10.453   | .00000 | 35.05265 | 1.76505 | .29572 | -.15724 | -.00130 | -.00269 | .00358 |
| .155 | 11.505   | .00000 | 35.42344 | 1.84262 | .31116 | -.18095 | -.00134 | -.00307 | .00383 |
| .154 | 12.499   | .00000 | 35.10992 | 1.92332 | .32487 | -.19821 | -.00034 | -.00006 | .00327 |
|      | GRADIENT | .00000 | .01293   | .09927  | .00853 | -.02382 | .00010  | .00014  | .00037 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1.2H15.6.1F30G5.3.5TS2

(RJF512) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 GP = 65.000

RUN NO. 512/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q (PSF)  | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .154 | .293     | .00000 | 35.13202 | .87194  | .17636 | -.02682 | .00009  | .00192  | .00167  |
| .155 | 1.317    | .00000 | 35.20995 | .97161  | .18411 | -.04590 | -.00010 | .00167  | .00313  |
| .154 | 2.347    | .00000 | 35.19541 | 1.08046 | .19279 | -.07294 | -.00062 | .00104  | .00258  |
| .154 | 3.300    | .00000 | 35.13672 | 1.17063 | .20235 | -.09551 | -.00090 | .00032  | .00293  |
| .154 | 4.370    | .00000 | 35.12491 | 1.27209 | .21328 | -.11864 | -.00036 | .00068  | .00128  |
| .154 | 5.419    | .00000 | 35.12709 | 1.36449 | .22639 | -.14017 | -.00095 | -.00062 | .00374  |
| .154 | 6.501    | .00000 | 35.12081 | 1.45436 | .23984 | -.16325 | -.00033 | .00068  | .00264  |
| .154 | 7.588    | .00000 | 35.17535 | 1.54061 | .25170 | -.18402 | -.00094 | -.00123 | .00211  |
| .155 | 8.377    | .00000 | 35.19780 | 1.60720 | .26805 | -.20306 | -.00121 | -.00179 | .00323  |
| .154 | 9.399    | .00000 | 35.09176 | 1.70321 | .28057 | -.22905 | -.00080 | -.00061 | .00315  |
| .154 | 10.457   | .00000 | 35.18469 | 1.79518 | .29792 | -.25369 | -.00080 | -.00111 | .00242  |
| .154 | 11.456   | .00000 | 35.18753 | 1.86964 | .31269 | -.27283 | -.00105 | -.00171 | .00463  |
| .155 | 12.459   | .00000 | 35.24396 | 1.93946 | .32903 | -.29026 | -.00162 | -.00286 | .00582  |
|      | GRADIENT | .00000 | -.00847  | .09858  | .00908 | -.02301 | -.00017 | -.00038 | -.00010 |



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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1.2

F30G5.3.5TS2

(RJF513) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 GP = 65.000

RUN NO. 513/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .154 | .326     | .00000 | 35.17658 | .95433  | .17959 | -.40522 | -.00039 | .00237  | .00249  |
| .154 | 1.341    | .00000 | 35.09152 | 1.05961 | .18550 | -.39915 | -.00140 | -.00040 | .00260  |
| .154 | 2.452    | .00000 | 35.09557 | 1.16427 | .19551 | -.40068 | -.00112 | .00040  | .00131  |
| .154 | 3.303    | .00000 | 35.16714 | 1.23957 | .20385 | -.39560 | -.00073 | .00118  | .00190  |
| .154 | 4.387    | .00000 | 35.13430 | 1.33243 | .21573 | -.38947 | -.00157 | -.00143 | .00196  |
| .155 | 5.361    | .00000 | 35.22659 | 1.41051 | .22751 | -.37914 | -.00148 | -.00052 | .00508  |
| .154 | 6.363    | .00000 | 35.14498 | 1.49365 | .23956 | -.36906 | -.00193 | -.00237 | .00550  |
| .154 | 7.357    | .00000 | 35.15832 | 1.56945 | .25330 | -.36476 | -.00129 | -.00082 | .00542  |
| .155 | 8.419    | .00000 | 35.20236 | 1.66307 | .26638 | -.35351 | -.00108 | -.00030 | .00563  |
| .154 | 9.417    | .00000 | 35.12279 | 1.73209 | .28226 | -.34814 | -.00127 | -.00086 | .00583  |
| .155 | 10.463   | .00000 | 35.24695 | 1.80927 | .29662 | -.33847 | -.00142 | -.00169 | .00611  |
| .155 | 11.473   | .00000 | 35.18892 | 1.87955 | .31254 | -.33486 | -.00130 | -.00167 | .00620  |
| .155 | 12.455   | .00000 | 35.23947 | 1.95837 | .32152 | -.32157 | -.00059 | .00014  | .00299  |
|      | GRADIENT | .00000 | -.00147  | .09288  | .00898 | .00345  | -.00017 | -.00061 | -.00018 |

REPRODUCIBILITY OF THE  
 ORIGINAL PAGE IS POOR

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(RJF514) ( 18 JUN 76 )

## PARAMETRIC DATA

|      |   |        |      |   |       |
|------|---|--------|------|---|-------|
| BETA | = | .000   | RN/L | = | 1.090 |
| GP   | = | 65.000 |      |   |       |

RUN NO. 514/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | -1.880   | .00000 | 35.22724 | -.20785 | .03393  | -.04865 | .00026  | .00056  | -.00584 |
| .155 | .138     | .00000 | 35.25887 | -.03855 | .02522  | -.03880 | -.00018 | .00187  | -.00489 |
| .154 | 4.187    | .00000 | 35.03207 | .29171  | .02740  | -.00225 | -.00077 | .00014  | -.00559 |
| .155 | 5.220    | .00000 | 35.23642 | .37274  | .03052  | .00290  | -.00023 | .00195  | -.00254 |
| .155 | 6.242    | .00000 | 35.24570 | .44915  | .03427  | .00688  | -.00001 | .00167  | -.00038 |
| .155 | 7.248    | .00000 | 35.23131 | .52657  | .03897  | .01642  | -.00072 | -.00008 | -.00059 |
| .155 | 8.267    | .00000 | 35.15472 | .59957  | .04521  | .02676  | -.00086 | .00022  | -.00210 |
| .155 | 9.248    | .00000 | 35.22562 | .67184  | .05225  | .03481  | -.00051 | .00052  | -.00038 |
| .155 | 10.300   | .00000 | 35.16013 | .73219  | .06318  | .04946  | -.00158 | -.00086 | -.00164 |
| .154 | 11.292   | .00000 | 35.07180 | .79566  | .07880  | .06546  | -.00164 | .00015  | .00109  |
| .154 | 12.337   | .00000 | 35.07384 | .85230  | .09787  | .08004  | -.00161 | -.00087 | .00206  |
|      | GRADIENT | .00000 | -.03559  | .08223  | -.00084 | .00785  | -.00017 | -.00012 | .00000  |

(RJF515) ( 18 JUN 76 )

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
GP = 87.000

RUN NO. 515/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1.2 TS1

(RJF516) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 GP = 45.000

RUN NO. 516/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155 | .146     | .00000 | 35.19509 | -.03064 | .02568 | -.03532 | -.00002 | .00053  | -.00358 |
| .155 | 1.167    | .00000 | 35.21609 | .04958  | .02454 | -.02771 | -.00007 | .00112  | -.00500 |
| .155 | 2.172    | .00000 | 35.28023 | .12513  | .02496 | -.02135 | -.00025 | .00159  | -.00335 |
| .155 | 3.187    | .00000 | 35.27707 | .21267  | .02534 | -.01210 | -.00022 | .00047  | -.00239 |
| .155 | 4.185    | .00000 | 35.31840 | .28864  | .02765 | -.00837 | -.00031 | .00167  | -.00154 |
| .155 | 5.218    | .00000 | 35.24356 | .38199  | .03035 | .00307  | -.00059 | .00055  | -.00128 |
| .155 | 6.224    | .00000 | 35.18029 | .45221  | .03419 | .00669  | -.00049 | .00175  | -.00047 |
| .154 | 7.230    | .00000 | 35.06847 | .52837  | .03900 | .01274  | -.00065 | .00051  | -.00068 |
| .154 | 8.265    | .00000 | 35.12204 | .60033  | .04510 | .02304  | -.00056 | .00033  | .00107  |
| .154 | 9.261    | .00000 | 35.12986 | .66751  | .05268 | .03222  | -.00092 | -.00018 | .00064  |
| .154 | 10.299   | .00000 | 35.11160 | .73576  | .06348 | .04815  | -.00136 | -.00078 | .00259  |
| .155 | 11.274   | .00000 | 35.17074 | .79498  | .07902 | .06403  | -.00133 | -.00070 | .00339  |
| .155 | 12.320   | .00000 | 35.21696 | .86150  | .10028 | .07796  | -.00156 | -.00057 | .00420  |
|      | GRADIENT | .00000 | .03045   | .07939  | .00047 | .00669  | -.00007 | .00016  | .00066  |

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(CA-8) K1.2H15.1TS1

(RJF517) ( 18 JUN 76 )

## REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.      YMRP = .0000 IN.YC
BREF = 2348.0000 IN.     ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|      |   |        |        |   |       |
|------|---|--------|--------|---|-------|
| BETA | = | .000   | RN/L   | = | 1.090 |
| STAB | = | -2.000 | ELEVTR | = | .000  |
| GP   | = | 45.000 |        |   |       |

RUN NO. 517/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD      | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|---------|---------|---------|---------|---------|---------|
| .155 | .137     | .00000 | 35.22009 | -.07758 | .02696  | .16535  | .00057  | .00028  | -.00125 |
| .155 | 1.128    | .00000 | 35.23349 | .01121  | .02571  | .14350  | .00036  | .00060  | -.00198 |
| .155 | 2.148    | .00000 | 35.23881 | .10758  | .02536  | .11999  | .00020  | .00067  | -.00264 |
| .155 | 3.201    | .00000 | 35.19844 | .19712  | .02709  | .09679  | .00007  | .00142  | -.00136 |
| .155 | 4.219    | .00000 | 35.26457 | .27728  | .02954  | .07394  | -.00021 | -.00015 | -.00189 |
| .154 | 5.235    | .00000 | 35.06920 | .36883  | .03278  | .05265  | -.00007 | .00028  | -.00054 |
| .155 | 6.282    | .00000 | 35.15992 | .46571  | .03744  | .02723  | .00007  | .00186  | .00276  |
| .155 | 7.282    | .00000 | 35.18785 | .54167  | .04283  | .00829  | -.00024 | .00078  | .00037  |
| .155 | 8.306    | .00000 | 35.17097 | .61712  | .05044  | -.00750 | -.00038 | -.00031 | .00323  |
| .155 | 9.269    | .00000 | 35.25062 | .70111  | .05868  | -.02540 | -.00036 | -.00015 | .00389  |
| .155 | 10.301   | .00000 | 35.26083 | .76967  | .07136  | -.03350 | -.00047 | -.00056 | .00478  |
| .155 | 11.303   | .00000 | 35.25845 | .83474  | .08910  | -.03360 | -.00081 | .00006  | .00540  |
| .155 | 12.277   | .00000 | 35.41661 | .89182  | .10870  | -.04048 | -.00105 | -.00064 | .00622  |
|      | GRADIENT | .00521 | .008748  | .00064  | -.02242 | -.00018 | -.00000 | -.00000 | -.00006 |

(CA-8) K1.2H15.1TS1

(RJF518) ( 18 JUN 76 )

### REFERENCE DATA

```

SREF = 5500.0000 SQ.FT.   XMRP = 1339.9100 IN.XC
LREF = 327.8000 IN.       YMRP = .0000 IN.YC
BREF = 2348.0000 IN.      ZMRP = 190.7500 IN.ZC
SCALE = .0400

```

## PARAMETRIC DATA

|      |   |        |        |   |       |
|------|---|--------|--------|---|-------|
| BETA | = | .000   | RN/L   | = | 1.090 |
| STAB | = | -2.000 | ELEVTR | = | .000  |
| GP   | = | 87.000 |        |   |       |

RUN NO. 518/ 0      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

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(RJF519) ( 18 JUN 76 )

## PARAMETRIC DATA

|      |   |        |        |   |       |
|------|---|--------|--------|---|-------|
| BETA | = | .000   | RN/L   | = | 1.090 |
| STAB | = | -2.000 | ELEVTR | = | .000  |
| GP   | = | 65.000 |        |   |       |

RUN NO. 519/ 0    RN/L =    .00    GRADIENT INTERVAL\* = -5.00/ 5.00

[illegible]

(RJF520) ( 18 JUN 76 )

## PARAMETRIC DATA

|      |   |        |        |   |       |
|------|---|--------|--------|---|-------|
| BETA | = | .000   | RN/L   | = | 1.090 |
| STAB | = | .000   | ELEVTR | = | .000  |
| GP   | = | 65.000 |        |   |       |

RUN NO. 520/ 3      RN/L = .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

DATE 06 JUL 76

## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1.2H15.1TS1

(RJF521) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 GP = 65.000

RUN NO. 521/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL     | CD     | CLM    | CLN     | CSL     | CY      |
|------|----------|--------|----------|--------|--------|--------|---------|---------|---------|
| .155 | 4.210    | .00000 | 35.18620 | .26131 | .02825 | .16685 | .00003  | .00018  | -.00078 |
| .155 | 5.199    | .00000 | 35.20423 | .34052 | .03151 | .14745 | .00002  | .00102  | -.00067 |
| .154 | 6.226    | .00000 | 35.11639 | .43185 | .03597 | .12661 | .00005  | .00109  | .00074  |
| .155 | 7.238    | .00000 | 35.16858 | .51173 | .04123 | .10674 | .00005  | .00059  | .00357  |
| .155 | 8.286    | .00000 | 35.18774 | .60029 | .04747 | .08949 | -.00016 | .00070  | .00108  |
| .154 | 9.262    | .00000 | 35.14573 | .67387 | .05512 | .07665 | -.00028 | -.00032 | .00289  |
| .154 | 10.292   | .00000 | 35.13113 | .73970 | .06729 | .07121 | -.00094 | -.00097 | .00369  |
| .155 | 11.297   | .00000 | 35.20856 | .80130 | .08385 | .06835 | -.00103 | -.00047 | .00540  |
| .155 | 12.319   | .00000 | 35.24397 | .86833 | .10408 | .06675 | -.00117 | -.00119 | .00425  |
|      | GRADIENT | .00000 | .00000   | .00000 | .00000 | .00000 | .00000  | .00000  | .00000  |

(CA-8) K1.2H15.1TS1 (INVERTED)

(RJF522) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 GP = 65.000

RUN NO. 522/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL     | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|--------|--------|---------|---------|---------|---------|
| .154 | 3.030    | .00000 | 34.89915 | .15411 | .02422 | .20208  | .00129  | .00277  | .00001  |
| .155 | 4.082    | .00000 | 35.15230 | .24230 | .02637 | .18022  | .00113  | .00245  | -.00021 |
| .155 | 5.069    | .00000 | 35.12724 | .33196 | .02889 | .15776  | .00125  | .00168  | .00006  |
| .155 | 6.068    | .00000 | 35.05611 | .41766 | .03318 | .13725  | .00118  | .00233  | -.00038 |
| .154 | 7.076    | .00000 | 34.94342 | .50470 | .03794 | .11773  | .00125  | .00203  | -.00142 |
| .155 | 8.144    | .00000 | 35.22451 | .58917 | .04432 | .09952  | .00125  | .00184  | -.00247 |
| .155 | 9.151    | .00000 | 35.14043 | .67107 | .05191 | .08534  | .00111  | .00102  | -.00028 |
| .155 | 10.146   | .00000 | 35.20270 | .74256 | .06256 | .07930  | .00053  | .00113  | .00023  |
| .155 | 11.158   | .00000 | 35.20675 | .80659 | .07935 | .07667  | .00065  | .00174  | .00067  |
| .155 | 12.177   | .00000 | 35.20213 | .87700 | .10027 | .07450  | .00030  | .00093  | .00060  |
|      | GRADIENT | .00000 | .24063   | .08383 | .00204 | -.02078 | -.00015 | -.00030 | -.00021 |

(CA-8) K1.2H15.1TS1 (INVERTED)

(RJF523) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 GP = 65.000

RUN NO. 523/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL     | CD     | CLM     | CLN     | CSL    | CY      |
|------|----------|--------|----------|--------|--------|---------|---------|--------|---------|
| .155 | 3.014    | .00000 | 35.11133 | .16713 | .02505 | .11432  | .00129  | .00170 | -.00027 |
| .155 | 4.031    | .00000 | 35.19226 | .26462 | .02714 | .09025  | .00111  | .00202 | -.00074 |
| .155 | 5.068    | .00000 | 35.06163 | .35838 | .03015 | .06696  | .00120  | .00238 | -.00095 |
| .154 | 6.003    | .00000 | 34.95552 | .44564 | .03376 | .04764  | .00084  | .00155 | .00023  |
| .154 | 7.035    | .00000 | 34.88716 | .52090 | .03960 | .03011  | .00125  | .00238 | -.00020 |
| .155 | 8.043    | .00000 | 35.26617 | .60136 | .04591 | .00980  | .00107  | .00208 | -.00129 |
| .155 | 9.030    | .00000 | 35.24048 | .68068 | .05396 | -.00617 | .00080  | .00028 | .00236  |
| .155 | 10.019   | .00000 | 35.05571 | .76351 | .06457 | -.01621 | .00065  | .00042 | .00197  |
| .155 | 11.144   | .00000 | 35.06279 | .83526 | .08344 | -.01587 | .00038  | .00097 | .00134  |
| .155 | 12.023   | .00000 | 35.02057 | .89285 | .10142 | -.01701 | .00021  | .00111 | .00077  |
|      | GRADIENT | .00000 | .07958   | .09586 | .00206 | -.02367 | -.00018 | .00031 | -.00046 |

(CA-8) K1.2H15.1TS1 (INVERTED)

(RJF524) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 GP = 87.000

RUN NO. 524/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL    | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|--------|---------|
| .155 | -.047    | .00000 | 35.18596 | -.09012 | .02606 | .17829  | .00174  | .00122 | .00315  |
| .154 | .965     | .00000 | 34.91249 | -.00541 | .02402 | .15681  | .00127  | .00219 | .00019  |
| .155 | 1.880    | .00000 | 35.02462 | .07516  | .02370 | .13832  | .00123  | .00223 | -.00024 |
| .155 | 3.043    | .00000 | 35.16274 | .17258  | .02496 | .11379  | .00106  | .00186 | -.00036 |
| .155 | 3.943    | .00000 | 35.15525 | .25341  | .02714 | .09301  | .00114  | .00247 | .00004  |
| .155 | 5.019    | .00000 | 35.06452 | .34931  | .02977 | .06997  | .00121  | .00263 | -.00113 |
| .155 | 6.001    | .00000 | 35.13240 | .43454  | .03439 | .04974  | .00111  | .00251 | -.00124 |
| .154 | 6.963    | .00000 | 34.92344 | .51438  | .03952 | .03065  | .00124  | .00223 | .00086  |
| .155 | 8.074    | .00000 | 35.12067 | .61329  | .04593 | .00740  | .00109  | .00086 | .00143  |
| .155 | 9.120    | .00000 | 35.25971 | .68995  | .05458 | -.00703 | .00109  | .00142 | .00095  |
| .155 | 9.998    | .00000 | 35.27215 | .75064  | .06416 | -.01496 | .00079  | .00092 | .00067  |
| .155 | 11.102   | .00000 | 35.23498 | .82977  | .08205 | -.01562 | .00069  | .00110 | .00239  |
| .155 | 12.069   | .00000 | 35.19697 | .88643  | .10158 | -.01817 | .00061  | .00109 | .00196  |
|      | GRADIENT | .00000 | .01949   | .08598  | .00031 | -.02123 | -.00014 | .00021 | -.00067 |

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(RJF525) ( 18 JUN 76 )

## PARAMETRIC DATA

|      |   |        |        |   |       |
|------|---|--------|--------|---|-------|
| BETA | = | .030   | RN/L   | = | 1.090 |
| STAB | = | .000   | ELEVTR | = | .000  |
| GP   | = | 65.000 |        |   |       |

RUN NO. 525/ 0    RN/L = .00    GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL     | CD     | CLM     | CLN     | CSL     | CY      |
|------|----------|--------|----------|--------|--------|---------|---------|---------|---------|
| .155 | 3.029    | .03000 | 35.06263 | .20011 | .02617 | .02312  | .00104  | .00259  | -.00031 |
| .154 | 3.906    | .03000 | 34.94003 | .28184 | .02816 | .00110  | .00088  | .00201  | .00163  |
| .155 | 5.006    | .03000 | 35.08018 | .37980 | .03227 | -.02477 | .00074  | .00107  | .00197  |
| .154 | 6.000    | .03000 | 34.91963 | .46159 | .03688 | -.04685 | .00101  | .00207  | .00146  |
| .155 | 7.120    | .04000 | 35.05382 | .55757 | .04349 | -.07306 | .00094  | .00178  | -.00055 |
| .155 | 8.035    | .04000 | 35.26312 | .62718 | .04998 | -.09043 | .00115  | .00215  | .00121  |
| .155 | 9.059    | .04000 | 35.22068 | .71408 | .05860 | -.10957 | .00087  | .00118  | .00034  |
| .155 | 10.113   | .04000 | 35.18735 | .79201 | .07100 | -.11783 | .00039  | .00090  | .00216  |
| .155 | 11.061   | .04000 | 35.19712 | .85481 | .08699 | -.11597 | .00029  | .00106  | .00375  |
| .155 | 12.129   | .04000 | 35.15459 | .92926 | .10984 | -.11791 | .00048  | .00079  | .00362  |
|      | GRADIENT | .00000 | -.13980  | .09296 | .00227 | -.02511 | -.00018 | -.00066 | .00221  |

(RJF526) ( 18 JUN 76 )

## PARAMETRIC DATA

|      |   |        |      |   |       |
|------|---|--------|------|---|-------|
| BETA | = | .000   | RN/L | = | 1.090 |
| GP   | = | 45.000 |      |   |       |

RUN NO. 526/ 0      RN/L =      .00      GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



(CA-8) K1.2 TSI (INVERTED)

(RJF527) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 GP = 65.000

RUN NO. 527/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHAW | BETA   | Q(PSF)   | CL     | CD     | CLM     | CLN     | CSL    | CY      |
|----------|--------|--------|----------|--------|--------|---------|---------|--------|---------|
| .155     | 2.958  | .00000 | 35.03711 | .20761 | .02416 | -.01578 | .00112  | .00223 | .00036  |
| .154     | 3.961  | .00000 | 34.92312 | .27789 | .02606 | -.01336 | .00101  | .00281 | -.00258 |
| .154     | 5.036  | .00000 | 34.87945 | .37767 | .02833 | -.0033  | .00099  | .00277 | -.00135 |
| .155     | 6.015  | .00000 | 35.03737 | .44978 | .03272 | .00325  | .00079  | .00268 | .00073  |
| .155     | 7.031  | .00000 | 35.14386 | .53134 | .03708 | .01132  | .00086  | .00205 | -.00001 |
| .155     | 8.126  | .00000 | 35.22279 | .60600 | .04374 | .01868  | .00092  | .00229 | .00101  |
| .155     | 9.045  | .00000 | 35.23544 | .67707 | .05025 | .02885  | .00054  | .00150 | -.00137 |
| .155     | 10.022 | .00000 | 35.23766 | .74556 | .05949 | .04211  | .00017  | .00038 | .00270  |
| .155     | 11.151 | .00000 | 35.18616 | .81262 | .07718 | .06118  | .00021  | .00149 | .00065  |
| .155     | 12.122 | .00000 | 35.22754 | .87356 | .09606 | .07468  | .00005  | .00144 | .00111  |
| GRADIENT |        | .00000 | -.11365  | .07007 | .00189 | .00241  | -.00011 | .00058 | -.00293 |

(CA-8) K1.2 TSI (INVERTED)

(RJF528) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 GP = 87.000

RUN NO. 528/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHAW | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN    | CSL    | CY      |
|----------|--------|--------|----------|---------|--------|---------|--------|--------|---------|
| .155     | -.049  | .00000 | 34.98914 | -.03716 | .02341 | -.03914 | .00106 | .00230 | .00562  |
| .155     | 1.031  | .00000 | 35.32740 | .05089  | .02205 | -.02961 | .00077 | .00167 | .00336  |
| .155     | 2.058  | .00000 | 34.99799 | .13150  | .02154 | -.02286 | .00103 | .00242 | .00289  |
| .155     | 3.067  | .00000 | 35.05388 | .21031  | .02260 | -.01769 | .00101 | .00311 | .00338  |
| .155     | 4.094  | .00000 | 35.10337 | .28953  | .02500 | -.01027 | .00113 | .00259 | .00335  |
| .155     | 5.112  | .00000 | 35.14249 | .37732  | .02743 | -.00502 | .00087 | .00212 | .00198  |
| .155     | 6.024  | .00000 | 35.03018 | .44659  | .03114 | .00214  | .00096 | .00250 | .00124  |
| .155     | 7.072  | .00000 | 35.09025 | .52396  | .03628 | .00875  | .00095 | .00272 | .00060  |
| .155     | 8.059  | .00000 | 35.15219 | .59338  | .04228 | .01701  | .00086 | .00240 | .00013  |
| .155     | 8.989  | .00000 | 35.07390 | .66516  | .04824 | .02649  | .00072 | .00141 | -.00007 |
| .155     | 10.110 | .00000 | 35.12719 | .74454  | .05911 | .04240  | .00035 | .00107 | .00050  |
| .155     | 11.123 | .00000 | 34.98255 | .80704  | .07507 | .05858  | .00007 | .00198 | .00045  |
| .155     | 12.137 | .00000 | 35.09097 | .86871  | .09476 | .07370  | .00009 | .00172 | .00205  |
| GRADIENT |        | .00000 | -.00377  | .07875  | .00035 | .00676  | .00004 | .00019 | -.00044 |

DATE 06 JUL 76

## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1.2 TS2F30 (INVERTED)

(RJF529) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 GP = 65.000

RUN NO. 529/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL    | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|--------|---------|
| .155 | 3.198    | .00000 | 35.04157 | 1.23776 | .20608 | -.40117 | .00073  | .00235 | .00248  |
| .155 | 4.240    | .00000 | 35.01809 | 1.33641 | .21584 | -.39638 | .00077  | .00237 | -.00036 |
| .154 | 5.261    | .00000 | 34.95654 | 1.42875 | .22678 | -.38661 | .00044  | .00229 | -.00183 |
| .155 | 6.287    | .00000 | 35.08374 | 1.51713 | .23844 | -.37581 | .00069  | .00295 | -.00347 |
| .155 | 7.274    | .00000 | 35.04965 | 1.59367 | .25309 | -.37123 | .00065  | .00267 | -.00161 |
| .155 | 8.345    | .00000 | 35.09540 | 1.68412 | .26657 | -.36346 | .00038  | .00280 | -.00100 |
| .155 | 9.233    | .00000 | 35.15968 | 1.74556 | .28005 | -.35022 | .00022  | .00281 | -.00083 |
| .155 | 10.296   | .00000 | 35.10115 | 1.83225 | .29491 | -.35247 | -.00004 | .00219 | -.00579 |
| .155 | 11.269   | .00000 | 35.08501 | 1.90598 | .30870 | -.34343 | -.00006 | .00266 | -.00381 |
| .155 | 12.225   | .00000 | 34.98990 | 1.97186 | .32257 | -.33463 | -.00002 | .00345 | -.00728 |
|      | GRADIENT | .00000 | -.02254  | .09467  | .00937 | .00460  | .00004  | .00002 | -.00273 |

(CA-8) K1.2 TS2F30 (INVERTED)

(RJF530) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 GP = 87.000

RUN NO. 530/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHAW   | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN    | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|--------|---------|---------|
| .155 | .179     | .00000 | 35.24062 | .95716  | .17999 | -.40840 | .00049 | .00226  | .00327  |
| .154 | 1.135    | .00000 | 34.90961 | 1.04416 | .18686 | -.40774 | .00072 | .00238  | .00230  |
| .155 | 2.239    | .00000 | 35.23468 | 1.15252 | .19497 | -.40511 | .00067 | .00296  | .00110  |
| .155 | 3.161    | .00000 | 35.22725 | 1.22881 | .20439 | -.40248 | .00083 | .00253  | .00138  |
| .155 | 4.169    | .00000 | 35.12281 | 1.32106 | .21348 | -.39560 | .00051 | .00198  | -.00137 |
| .155 | 5.319    | .00000 | 35.11061 | 1.42351 | .22588 | -.38663 | .00072 | .00319  | -.00315 |
| .155 | 6.169    | .00000 | 35.12980 | 1.48980 | .23658 | -.37828 | .00069 | .00309  | -.00255 |
| .155 | 7.300    | .00000 | 35.02067 | 1.58906 | .25070 | -.36985 | .00048 | .00270  | -.00060 |
| .155 | 8.338    | .00000 | 35.01705 | 1.66688 | .26522 | -.36329 | .00037 | .00320  | -.00121 |
| .154 | 9.300    | .00000 | 34.89341 | 1.73565 | .27974 | -.35612 | .00052 | .00389  | -.00448 |
| .156 | 10.313   | .00000 | 35.43446 | 1.82044 | .29255 | -.34837 | .00038 | .00343  | -.00514 |
| .155 | 11.339   | .00000 | 35.21032 | 1.89312 | .30772 | -.34114 | .00045 | .00372  | -.00730 |
| .155 | 12.313   | .00000 | 35.19335 | 1.95993 | .32026 | -.33095 | .00015 | .00425  | -.00545 |
|      | GRADIENT | .00000 | .00954   | .09124  | .00844 | .00320  | .00001 | -.00004 | -.00102 |

(CA-8) K1.2H15.1TS2F30 (INVERTED)

(RJF531) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 GP = 65.000

RUN NO. 531/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHAW | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL     | CY      |
|----------|--------|--------|----------|---------|--------|---------|---------|---------|---------|
| .155     | 3.218  | .00000 | 35.28066 | 1.16792 | .19782 | -.08487 | .00149  | .00202  | -.00154 |
| .155     | 4.134  | .00000 | 35.20792 | 1.26436 | .20651 | -.10741 | .00132  | .00152  | -.00279 |
| .155     | 5.225  | .00000 | 35.16632 | 1.35147 | .22095 | -.12742 | .00137  | .00168  | -.00117 |
| .155     | 6.319  | .00000 | 35.11450 | 1.45620 | .23448 | -.15195 | .00135  | .00190  | -.00269 |
| .154     | 7.246  | .00000 | 34.97325 | 1.54510 | .24674 | -.17365 | .00124  | .00207  | -.00329 |
| .154     | 8.156  | .00000 | 34.95090 | 1.62602 | .26043 | -.19520 | .00081  | .00157  | -.00257 |
| .155     | 9.389  | .00000 | 35.05263 | 1.73869 | .27756 | -.22422 | .00061  | .00102  | -.00036 |
| .155     | 10.242 | .00000 | 35.02911 | 1.81235 | .29099 | -.24114 | .00069  | .00192  | -.00230 |
| .154     | 11.225 | .00000 | 34.97616 | 1.88797 | .30665 | -.26239 | .00085  | .00250  | -.00612 |
| .155     | 12.326 | .00000 | 35.01792 | 1.96506 | .32524 | -.27915 | .00021  | .00228  | -.00231 |
| GRADIENT |        | .00000 | -.07941  | .10528  | .00949 | -.02461 | -.00019 | -.00055 | -.00136 |

(CA-8) K1.2H15.1TS2F30 (INVERTED)

(RJF532) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 GP = 87.000

RUN NO. 532/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH     | ALPHAW | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN    | CSL     | CY      |
|----------|--------|--------|----------|---------|--------|---------|--------|---------|---------|
| .155     | .170   | .00000 | 35.11479 | .84689  | .17369 | -.00736 | .00140 | .00198  | .00131  |
| .154     | 1.131  | .00000 | 34.79632 | .95071  | .17966 | -.03262 | .00125 | .00220  | -.00230 |
| .155     | 2.165  | .00000 | 35.07005 | 1.05034 | .18821 | -.05733 | .00151 | .00199  | -.00028 |
| .155     | 3.169  | .00000 | 35.09649 | 1.15158 | .19687 | -.08001 | .00153 | .00259  | -.00066 |
| .155     | 4.237  | .00000 | 35.15192 | 1.24907 | .20794 | -.10429 | .00156 | .00177  | -.00079 |
| .155     | 5.262  | .00000 | 35.10707 | 1.35328 | .21985 | -.12867 | .00122 | .00200  | -.00241 |
| .155     | 6.254  | .00000 | 35.10369 | 1.44583 | .23142 | -.14883 | .00151 | .00200  | -.00171 |
| .155     | 7.198  | .00000 | 35.09876 | 1.52574 | .24462 | -.17028 | .00123 | .00168  | -.00210 |
| .155     | 8.320  | .00000 | 35.01245 | 1.62282 | .26128 | -.19461 | .00105 | .00222  | -.00277 |
| .155     | 9.307  | .00000 | 35.03613 | 1.71203 | .27580 | -.21570 | .00114 | .00277  | -.00440 |
| .155     | 10.242 | .00000 | 35.14481 | 1.78893 | .29032 | -.23813 | .00106 | .00295  | -.00592 |
| .155     | 11.216 | .00000 | 35.18188 | 1.87233 | .30400 | -.25880 | .00096 | .00315  | -.00534 |
| .155     | 12.300 | .00000 | 35.05655 | 1.94738 | .32042 | -.27885 | .00070 | .00327  | -.00587 |
| GRADIENT |        | .00000 | .05779   | .09878  | .00844 | -.02371 | .00006 | -.00001 | -.00026 |

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(CA-8) K1.2H15.1TS2F30 (INVERTED)

(RJF533) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 GP = 65.000

RUN NO. 533/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN    | CSL    | CY      |
|------|----------|--------|----------|---------|--------|---------|--------|--------|---------|
| .155 | 3.141    | .00000 | 35.22581 | 1.13404 | .19621 | .00945  | .00154 | .00163 | -.00191 |
| .155 | 4.206    | .00000 | 34.98912 | 1.23199 | .20779 | -.01473 | .00168 | .00229 | -.00151 |
| .155 | 5.268    | .00000 | 35.27457 | 1.34480 | .21900 | -.03964 | .00133 | .00071 | -.00216 |
| .155 | 6.257    | .00000 | 35.14696 | 1.42740 | .23164 | -.05684 | .00160 | .00223 | -.00334 |
| .155 | 7.216    | .00000 | 35.12172 | 1.51680 | .24449 | -.07875 | .00140 | .00173 | -.00465 |
| .155 | 8.313    | .00000 | 35.07239 | 1.61503 | .25969 | -.10593 | .00130 | .00214 | -.00311 |
| .155 | 9.334    | .00000 | 35.11475 | 1.70251 | .27482 | -.12707 | .00107 | .00235 | -.00465 |
| .155 | 10.338   | .00000 | 35.01777 | 1.78935 | .29031 | -.14990 | .00093 | .00230 | -.00502 |
| .155 | 11.242   | .00000 | 35.05386 | 1.86870 | .30283 | -.16886 | .00072 | .00198 | -.00533 |
| .155 | 12.256   | .00000 | 34.99480 | 1.94081 | .31909 | -.18650 | .00038 | .00220 | -.00385 |
|      | GRADIENT | .00000 | -.22224  | .09197  | .01087 | -.02273 | .00013 | .00062 | .00038  |

(CA-8) K1.2H15.1TS2F30 (INVERTED)

(RJF534) ( 18 JUN 76 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 GP = 87.000

RUN NO. 534/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN    | CSL     | CY      |
|------|----------|--------|----------|---------|--------|---------|--------|---------|---------|
| .155 | .107     | .00000 | 35.14962 | .81590  | .17408 | .08765  | .00130 | .00181  | -.00024 |
| .154 | 1.181    | .00000 | 34.94798 | .92149  | .18100 | .06185  | .00159 | .00310  | -.00207 |
| .155 | 2.151    | .00000 | 35.15066 | 1.02805 | .18760 | .03532  | .00144 | .00202  | -.00185 |
| .155 | 3.231    | .00000 | 35.07041 | 1.13499 | .19642 | .01027  | .00147 | .00175  | -.00092 |
| .155 | 4.100    | .00000 | 35.22284 | 1.21651 | .20501 | -.01131 | .00155 | .00154  | -.00229 |
| .155 | 5.250    | .00000 | 35.20051 | 1.31785 | .21876 | -.03347 | .00173 | .00281  | -.00322 |
| .155 | 6.160    | .00000 | 35.14401 | 1.41153 | .22845 | -.05517 | .00143 | .00178  | -.00324 |
| .155 | 7.241    | .00000 | 35.15192 | 1.51165 | .24298 | -.07949 | .00181 | .00284  | -.00403 |
| .155 | 8.317    | .00000 | 35.18438 | 1.59529 | .25925 | -.10300 | .00144 | .00299  | -.00247 |
| .155 | 9.299    | .00000 | 35.08203 | 1.68863 | .27269 | -.12517 | .00137 | .00307  | -.00393 |
| .155 | 10.286   | .00000 | 35.16787 | 1.76671 | .28792 | -.14898 | .00143 | .00340  | -.00336 |
| .155 | 11.364   | .00000 | 35.10388 | 1.85190 | .30380 | -.16922 | .00125 | .00372  | -.00707 |
| .155 | 12.381   | .00000 | 35.19240 | 1.93860 | .31630 | -.18893 | .00083 | .00370  | -.00540 |
|      | GRADIENT | .00000 | .02513   | .10114  | .00768 | -.02486 | .00004 | -.00018 | -.00029 |

(CA-8) K1.2H15.6.1F30TS4 (INVERTED)

(RJF535) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -2.000 ELEVTR = .000  
 GP = 87.000

| RUN NO. 535/ 0 |          | RN/L = .00 | GRADIENT INTERVAL = -5.00/ 5.00 |         |        |         |         |         |         |
|----------------|----------|------------|---------------------------------|---------|--------|---------|---------|---------|---------|
| MACH           | ALPHAW   | BETA       | Q (PSF)                         | CL      | CD     | CLM     | CLN     | CSL     | CY      |
| .155           | .111     | .00000     | 35.19751                        | .83596  | .17468 | .00713  | .00117  | .00278  | .00334  |
| .154           | 1.208    | .00000     | 34.85370                        | .95414  | .18157 | -.01788 | .00073  | .00254  | .00086  |
| .155           | 2.145    | .00000     | 34.97260                        | 1.04391 | .18917 | -.03939 | .00084  | .00250  | -.00006 |
| .155           | 3.060    | .00000     | 35.35006                        | 1.13659 | .19692 | -.05654 | .00077  | .00245  | .00008  |
| .155           | 4.169    | .00000     | 34.99555                        | 1.23753 | .20739 | -.07836 | .00094  | .00237  | -.00206 |
| .155           | 5.274    | .00000     | 35.27515                        | 1.34465 | .21886 | -.09869 | .00085  | .00234  | -.00058 |
| .155           | 6.270    | .00000     | 35.25008                        | 1.43748 | .23153 | -.12153 | .00068  | .00253  | -.00049 |
| .155           | 7.274    | .00000     | 35.14056                        | 1.52095 | .24578 | -.14317 | .00076  | .00278  | -.00042 |
| .155           | 8.273    | .00000     | 35.14471                        | 1.61528 | .25890 | -.17177 | .00033  | .00273  | .00291  |
| .155           | 9.262    | .00000     | 35.09811                        | 1.69803 | .27354 | -.19541 | .00031  | .00273  | .00134  |
| .155           | 10.276   | .00000     | 34.97481                        | 1.78951 | .28904 | -.22223 | .00013  | .00287  | -.00154 |
| .154           | 11.376   | .00000     | 34.82806                        | 1.88070 | .30572 | -.25029 | .00002  | .00273  | -.00215 |
| .155           | 12.294   | .00000     | 35.17552                        | 1.93697 | .32185 | -.26653 | -.00039 | .00353  | -.00127 |
|                | GRADIENT | .00000     | .00493                          | .09888  | .00810 | -.02103 | -.00004 | -.00009 | -.00117 |

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## CA-8 - FORCE SOURCE DATA TABULATION

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(CA-8) K1.2H15.6.1F30TS4 (INVERTED)

(RJF535) ( 18 JUN 76 )

## REFERENCE DATA

SREF = 5500.0000 SQ.FT. XMRP = 1339.9100 IN.XC  
 LREF = 327.8000 IN. YMRP = .0000 IN.YC  
 BREF = 2348.0000 IN. ZMRP = 190.7500 IN.ZC  
 SCALE = .0400

## PARAMETRIC DATA

BETA = .000 RN/L = 1.090  
 STAB = -4.000 ELEVTR = .000  
 GP = 87.000

RUN NO. 536/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

| MACH | ALPHA    | BETA   | Q(PSF)   | CL      | CD     | CLM     | CLN     | CSL    | CY      |
|------|----------|--------|----------|---------|--------|---------|---------|--------|---------|
| .156 | .129     | .00000 | 35.50093 | .82213  | .17591 | .08486  | .00103  | .00169 | .00251  |
| .155 | 1.132    | .00000 | 35.00890 | .92981  | .18102 | .06247  | .00078  | .00151 | .00000  |
| .154 | 2.079    | .00000 | 34.91749 | 1.01517 | .18881 | .04497  | .00093  | .00264 | -.00050 |
| .155 | 3.277    | .00000 | 34.98807 | 1.12811 | .19982 | .01958  | .00088  | .00271 | -.00151 |
| .155 | 4.145    | .00000 | 35.14371 | 1.21440 | .20690 | -.00021 | .00081  | .00157 | -.00203 |
| .155 | 5.168    | .00000 | 35.10215 | 1.32207 | .21690 | -.02060 | .00059  | .00186 | -.00300 |
| .155 | 6.245    | .00000 | 35.03547 | 1.40552 | .23106 | -.03461 | .00075  | .00225 | -.00082 |
| .155 | 7.212    | .00000 | 35.15631 | 1.50485 | .24155 | -.05694 | .00043  | .00259 | .00021  |
| .155 | 8.181    | .00000 | 35.15103 | 1.58512 | .25512 | -.07641 | .00010  | .00141 | .00088  |
| .155 | 9.238    | .00000 | 35.08341 | 1.66797 | .27095 | -.09715 | .00022  | .00265 | .00193  |
| .155 | 10.335   | .00000 | 35.06642 | 1.76432 | .28715 | -.12486 | .00037  | .00265 | -.00074 |
| .155 | 11.257   | .00000 | 34.99908 | 1.84372 | .30056 | -.14742 | .00039  | .00343 | -.00396 |
| .155 | 12.262   | .00000 | 35.10191 | 1.91378 | .31573 | -.16856 | -.00020 | .00311 | -.00149 |
|      | GRADIENT | .00000 | -.07167  | .09664  | .00795 | -.02092 | -.00003 | .00010 | -.00104 |